ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

LAND DIVISION - HAZARDOUS WASTE PROGRAM

DIVISION 14

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CITE AS

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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

DIVISION 335-14
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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM
ADMINISTRATIVE CODE

CHAPTER 335-14-1
HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

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335-14-1-.01 General
335-14-1-.02 Definitions and References
335-14-1-.03 Rulemaking Petitions

335-14-1-.01 General.

(1) Purpose, scope, applicability, citations, and submissions.

(a) 335-14-1 provides definitions of terms, general standards, and overview information applicable to 335-14.

(b) In 335-14-1:

1. 335-14-1-.01(2) sets forth the rules that EPA and ADEM will use in making information they receive available to the public and sets forth the requirements that generators, transporters, or owners or operators of treatment, storage or disposal facilities must follow to assert claims of business confidentiality with respect to information that is submitted to EPA and ADEM under 335-14-1 through 335-14-6 and 335-14-9.

2. 335-14-1-.01(3) establishes rules of grammatical construction for 335-14.

3. 335-14-1-.02 defines terms which are used in 335-14.

4. 335-14-1-.03 establishes procedures for petitioning ADEM and EPA to amend, modify, or revoke any provision of 335-14 and establishes procedures for governing ADEM action on such petitions.

5. 335-14-1-.03(1) establishes procedures for petitioning ADEM to approve testing methods as equivalent to those prescribed in 335-14-2, 335-14-5, or 335-14-6.

6. 335-14-1-.03(2) establishes procedures for petitioning ADEM to amend 335-14-2-.04 to exclude a waste from a particular facility.

7. 335-14-1-.03(3) establishes procedures for petitioning ADEM to include a waste in 335-14-11. [NOTE: Generators cannot petition ADEM under Rule

335-14-1-.03 and 335-14-11-.07 until the Department has received authorization from EPA for this revision of the Department's base program.]

(c) Unless specified otherwise by citation to the Code of Federal Regulations (CFR) or other authority, all citations to Divisions, Rules, paragraphs, and subparagraphs are to the Alabama Department of Environmental Management Administrative Code.

(d) Unless specified otherwise in 335-14, reports, notices, permit applications and all other submissions required by 335-14 shall be addressed to the following:

1. If such submission is to the Director,

Mail:

Director
Alabama Department of Environmental Management
P. O. Box 301463
Montgomery, AL 36130-1463

Hand Delivery:

Director
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

2. If such submission is to the Department,

Mail:

Chief, Land Division
Alabama Department of Environmental Management
P. O. Box 301463
Montgomery, AL 36130-1463

Hand Delivery:

Chief, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

(e) Certain submissions required by 335-14 involve the practice of engineering and/or land surveying, as those terms are defined in Code of Alabama 1975, as amended, §§ 34-11-1 to 34-11-37; and/or the practice of geology, as that term is defined in Code of Alabama 1975, as amended, §§ 34-41-1 to 34-41-24. It is the responsibility of any person preparing or submitting such submissions to ensure compliance with these laws and any regulations promulgated thereunder, as may be

required by the Alabama Board of Licensure for Professional Engineers and Land Surveyors and/or the Alabama Board of Licensure for Professional Geologists. All submissions, or parts thereof, which are required by State of Alabama law to be prepared by a licensed engineer, land surveyor, or geologist, must include the engineer's, land surveyor's, and/or geologist's signature and/or seal, as required by the applicable licensure laws.

(2) Availability of information; confidentiality of information.

(a) Any information provided to EPA under Parts 260 through 266 and 268 of 40 CFR will be made available to the public to the extent and in the manner authorized by the Freedom of Information Act, 5 U.S.C. Section 552, Section 3007(b) of RCRA and EPA regulations implementing the Freedom of Information Act and Section 3007(b), Part 2 of 40 CFR, as applicable. Any information provided to ADEM under 335-14-1 through 335-14-6 and 335-14-9 will be made available to the public to the extent and in the manner authorized by Rule 335-1-1-.06.

(b) Except as provided in 335-14-1-.01(2)(c), any person who submits information to EPA in accordance with Parts 260 through 266 and 268 of 40 CFR may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in §2.203(b) of 40 CFR. Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in Part 2, Subpart B, of 40 CFR. Any person who submits information to ADEM in accordance with 335-14-1 through 335-14-7 and 335-14-9 may assert a claim of business confidentiality in accordance with Rule 335-1-1-.06.

(c) After August 6, 2014, no claim of business confidentiality may be asserted by any person with respect to information entered on a Hazardous Waste Manifest (EPA Form 8700-22), a Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A), or an electronic manifest format that may be prepared and used in accordance with 335-15-3.02(1)(b).

(d) EPA will make any electronic manifest that is prepared and used in accordance with 335-14-3-.02(1)(a)3., or any paper manifest that is submitted to the system under 335-14-5-.05 or 335-14-6-.05 of this chapter available to the public under this section when the electronic or paper manifest is a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by EPA to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

1. After June 26, 2018, no claim of business confidentiality may be asserted by any person with respect to information contained in cathode ray tube export documents prepared, used and submitted under §§ 261.39(a)(5) and 261.41(a) of 40 CFR, and with respect to information contained in hazardous waste export, import, and transit documents prepared, used and submitted under 40 CFR §§ 262.82, 262.83, 262.84, 263.20, 264.12, 264.71, 265.12, 265.71, and 267.71, whether submitted electronically into EPA's Waste Import Export Tracking System or in paper format.

2. EPA will make any cathode ray tube export documents prepared, used and submitted under 40 CFR §§ 261.39(a)(5) and 261.41(a), and any hazardous waste export, import, and transit documents prepared, used and submitted under 40 CFR §§ 262.82, 262.83, 262.84, 263.20, 264.12, 264.71, 265.12, 265.71, and 267.71 of this chapter available to the public under this section when these electronic or paper documents are considered by EPA to be final documents. These submitted electronic and paper documents related to hazardous waste exports, imports and transits and cathode ray tube exports are considered by EPA to be final documents on March 1 of the calendar year after the related cathode ray tube exports or hazardous waste exports, imports, or transits occur.

(3) Use of number and gender. As used in 335-14:

(a) Words in the masculine gender also include the feminine and neuter genders; and

(b) Words in the singular include the plural; and

(c) Words in the plural include the singular.

(4) Manifest copy submission requirements for certain interstate waste shipments.

(a) A designated facility that receives waste through a hazardous waste manifest, either because the waste is a hazardous waste as defined in 335-14-2, or, for waste generated out of state, the state in which the waste is generated requires it to be regulated as a hazardous waste, shall:

1. Complete the facility portion of the applicable manifest;

2. Sign and date the facility certification;

3. Submit to the e-Manifest system a final copy of the manifest for data processing purposes; and

4. Pay the appropriate per manifest fee to EPA for each manifest submitted to the e-Manifest system, subject to the fee determination methodology, payment methods, dispute procedures, sanctions, and other fee requirements specified in subpart FF of 40 CFR 264.

Authors: Stephen C. Maurer, Michael B. Jones, Amy P. Zachry, Stephen A. Cobb, Vernon H. Crockett, C. Edwin Johnston, Heather M. Jones
Statutory Authority: Code of Alabama 1975, §22-30-11.
History: April 9, 1986. **Amended:** Effective: February 15, 1988; **Amended:** Effective: August 24, 1989; **Amended:** Effective: January 5, 1995; **Amended:** Effective: January 12, 1996; **Amended:** Effective: March 28, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 2, 1999; **Amended:** Effective: March 31, 2000; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: April 4, 2006; **Amended:** Effective: March 26, 2013; **Amended:** Effective: April 8, 2016;

Amended: Effective: March 31, 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-1-.02 Definitions and References.

(1) Definitions.

(a) For the purpose of these rules, the following words and phrases shall have the meanings given to them in this rule and as given by law unless the context of ADEM Administrative Code 335-14 indicates differently.

1. "Aboveground tank" means a device meeting the definition of "tank" in 335-14-1-.02 and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

2. "Aboveground used oil tank" means a tank used to store or process used oil that is not an underground storage tank as defined in 335-6-15-.02.

3. "Accumulated speculatively" or "Speculative accumulation" means a material that is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that – during the calendar year (commencing on January 1) – the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. Materials must be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period must be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under 335-14-2-.01(4)(c) are not to be included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however.

(i) A material is not accumulated speculatively, however, if the person accumulating it can show that:

(I) the material is managed in lined waste pile(s) which meet(s) the requirements of 335-14-5-.12 or tank(s) or container(s) as those terms are defined in 335-14;

(II) the material is potentially recyclable and has a feasible means of being recycled; and

(III) that, during the calendar year (commencing on January 1), the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. [In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under 335-14-2-.01(4)(c) are not included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however.]

(ii) Notwithstanding the preceding requirements, pulping liquors (i.e., black liquor) subject to the exclusion provided by 335-14-2-.01(4)(a)6. are not required to be managed in lined waste pile(s) which meet(s) the requirements of 335-14-5-.12 or tank(s) or container(s) as those terms are defined in 335-14.

4. "Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the Department receives certification of final closure.

5. "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after November 19, 1980 and which is not a closed portion. (See also "closed portion" and "inactive portion".)

6. "Active range" for the purposes of 335-14-7-.13 means a military range that is currently in service and is being regularly used for range activities.

7. “Acute hazardous waste” means hazardous wastes that meet the listing criteria in 335-14-2-.02(2) and therefore all either listed in 335-14-2-.04(2) with the assigned hazard code (H) or are listed in 335-14-2-.04(4)(e).

8. "ADEM" means the Alabama Department of Environmental Management as established by Code of Alabama 1975, §22-22A-4.

9. "Adequate notification" for the purposes of 335-14-3-.08 means one meeting the requirements of 335-14-3-.08(5)(a) for each waste stream. An adequate notification shall be made for each individual waste stream from each generator.

10. "Administrator" means the Administrator of EPA or his designee.

11. “Aerosol can” means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

12. "Agreement State" for the purposes of 335-14-7-.14 means a State that has entered into an agreement with the NRC under subsection 274b of the Atomic Energy Act of 1954, as amended (68 Stat. 919), to assume responsibility for regulating

within its borders byproduct, source, or special nuclear material in quantities not sufficient to form a critical mass.

13. "AHWMMA" means the Alabama Hazardous Wastes Management and Minimization Act of 1978, as amended, Code of Alabama 1975, §§22-30-1, et seq.

14. “Airbag waste” means any hazardous waste airbag modules or hazardous waste airbag inflators.

15. “Airbag waste collection facility” means any facility that receives airbag waste from airbag handlers subject to regulation under 335-2-.01(4)(j), and accumulates the waste for more than ten days.

16. “Airbag waste handler” means any person, by site, who generates airbag waste that is subject to regulation under 335-14.

17. "Ampule" means an airtight vial made of glass, plastic, metal, or any combination of these materials.

18. "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal off-site.

19. "Annual" means a calendar year.

20. "Annually" means once during each calendar year.

21. "Application" for the purposes of 335-14-8 means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications by the Department. Application also includes the information required by the Department in 335-14-8-.02(5) through (19) (contents of Part B of the application).

22. "Aquifer" means a geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

23. “Area of concern (AOC)” includes any area having a probable release of hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Department to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under Section 3005(c)(3) of the Resource Conservation and Recovery Act and ADEM Admin. Code Rule 335-14-8-.03(3)(b)2. in order to ensure adequate protection of human health and the environment.

24. "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent, or person of equivalent responsibility.

25. "Battery" means a device consisting of one or more electrically connected electrochemical cells which are designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

26. "Battery breaking" for the purposes of 335-14-7 means the decapitation, cutting, or otherwise liberating the contents of a lead-acid battery. This activity includes the separation of any component of the battery from the other components (e.g., drainage of acid from a spent lead-acid battery or removal of plates and groups from a spent lead-acid battery).

27. "Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

(I) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(II) The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream) and fluidized bed combustion units; and

(III) While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(IV) The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air and the driving of induced or forced draft fans or feedwater pumps); or

(V) The unit is one which the Department has determined, on a case-by-case basis, to be a boiler, after consideration of the standards in 335-14-1-.03(12).

28. "Broker" for the purposes of 335-14-3-.08 means a person who acts as an agent for a generator in return for a fee or commission.

29. "Bulked waste stream" for the purposes of 335-14-3-.08 means one in which multiple waste streams have been physically mixed together into an individual container or containers.

30. "By-product" for the purposes of 335-14-2-.01 is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

31. "CAMU-eligible waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, that are managed for implementing cleanup, pursuant to the requirements of 335-14-5-.19(1), (2), and (3).

32. "Captive insurance" as used in 335-14-5-.08 and 335-14-6-.08 means insurance provided by a company meeting any of the following conditions:

(i) Shares a common pool of assets as its parent corporation,

(ii) Belongs to the same economic family as its parent corporation,

(iii) Is wholly owned and/or capitalized with funds provided exclusively by the parent company, or

(iv) Is a wholly owned insurance interest operated and managed within the corporate family of the owner or operator for the primary purpose of insuring risks from within the same corporate family.

33. "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

34. "Cathode ray tube" or CRT means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

35. “Central accumulation area” means an on-site hazardous waste accumulation area subject to either 335-14-3-.01(7)(a) for large quantity generators; or 335-14-3-.01(6)(b) for small quantity generators. A central accumulation area at an eligible academic entity that chooses to be subject to 335-14-3-.12 must also comply with 335-14-3-.12(12) when accumulating unwanted material and/or hazardous waste.

36. "Certification" or "Recertification" means:

(i) A statement of professional opinion based upon knowledge and belief.

(ii) For the purposes of 335-14-3-.08 and Appendices thereto is a statement based upon knowledge and belief of the accuracy of the information required by Rule 335-14-3-.08.

37. "Certified delivery" for the purposes of 335-14-7-.14 means certified mail with return receipt requested, or equivalent courier service, or other means, that provides the sender with a receipt confirming delivery.

38. "Chemical agents and munitions" for the purposes of 335-14-7-.13 are as defined in 50 U.S.C. section 1521(j)(1).

39. “Closed container” means a container with a lid that is secured in a manner such that the waste will not leak if the container is tipped over.

40. "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

41. "Closure" for the purposes of 335-14-8 means the act of securing a facility pursuant to the requirements of 335-14-5.

42. "Closure plan" as used in 335-14-5-.08 and 335-14-6-.08 means the plan for closure prepared in accordance with the requirements of 335-14-5-.07(3) or 335-14-6-.07(3).

43. “College/University” for the purpose of 335-14-3-.12 means a private or public, post-secondary, degree-granting, academic institution, that is accredited by an accrediting agency listed annually by the U.S. Department of Education.

44. "Commercial hazardous waste disposal facility" is one receiving hazardous waste not generated on site for disposal and to which a fee is paid or other compensation is given for disposal.

45. "Commission" means the Alabama Environmental Management Commission as established by Code of Alabama 1975, §2-22A-6.

46. "Component" means:

(i) Either the tank or ancillary equipment of a tank system.

(ii) For the purposes of 335-14-7 means any of the various materials and parts of a spent lead-acid battery, including but not limited to, plates and groups, rubber and plastic battery chips, acid, and paper/cellulose material.

(iii) For the purposes of 335-14-8 means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function (e.g., a pump seal, pump, kiln liner, kiln thermocouple).

47. "Condition for exemption" means any requirement in 335-14-3 that states an event, action, or standard that must occur or be met in order to obtain an exemption from any application requirement in 335-14.

48. "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

49. "Consolidated waste stream" for the purposes of 335-14-3-.08 means one in which multiple waste streams are grouped together in individual containers for shipping purposes, but are not physically mixed together.

50. “Contained” means held in a unit (including a land-based unit as defined in 335-14-1-.02(1)(a)) that meets the following criteria:

(i) The unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment. Unpermitted releases are releases that are not covered by a permit (such as a permit to discharge to water or air) and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures.

(ii) The unit is properly labeled or otherwise has a system (such as a log) to immediately identify the hazardous secondary materials in the unit; and.

(iii) The unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.

(iv) Hazardous secondary materials in units that meet the applicable requirements of 335-14-5 and 335-14-6 are presumptively contained.

51. "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

52. "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of 335-14-5-.30 or 335-14-6-.30.

53. "Contamination" means the presence of any hazardous constituent in a concentration that exceeds the naturally occurring concentration of that constituent.

54. "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous wastes or hazardous waste constituents which could threaten human health or the environment.

55. "Corrective action cost estimate" for the purposes of 335-14-5-.08 means the most recent of the estimates prepared in accordance with 335-14-5-.08(10).

56. "Corrective action management unit (CAMU)" means an area within a facility that is used only for implementing corrective action or cleanup at the facility, pursuant to the requirements of 335-14-5-.19(1), (2), and (3).

[**Note:** All regulated units included in a CAMU remain subject to all applicable requirements including, but not limited to, the requirements of 335-14-5-.06, 335-14-5-.07 and 335-14-5-.08, 335-14-8, and the unit-specific requirements of 335-14-5 and 335-14-6 that applied to the units prior to their incorporation into the CAMU. See 335-14-5-.19(1)(b).]

57. "Corrective action plan" for the purposes of 335-14-5-.08 means the plan(s) which describes the corrective actions to be performed in accordance with the requirements of 335-14-5-.06(11) and (12).

58. "Corrosion expert" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

59. "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

60. “CRT Exporter” means any person in the United States who initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for such export.

61. "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

62. "CRT processing" means conducting all of the following activities:

(i) Receiving broken or intact CRTs; and

(ii) Intentionally breaking intact CRTs or further breaking or separating broken CRTs; and

(iii) Sorting or otherwise managing glass removed from CRT monitors.

63. "Current closure cost estimate" as used in 335-14-5-.08 and 335-14-6-.08 means the most recent of the estimates prepared in accordance with 335-14-5-.08(3)(a), (3)(b), and (3)(c) or 335-14-6-.08(3)(a), (3)(b), and (3)(c).

64. "Current post-closure cost estimate" as used in 335-14-5-.08 and 335-14-6-.08 means the most recent of the estimates prepared in accordance with 335-14-5-.08(5)(a), (5)(b), and (5)(c) or 335-14-6-.08(5)(a), (5)(b), and (5)(c).

65. "CWA" or "Clean Water Act" for the purposes of 335-14-8 means the act formerly referred to as the Federal Water Pollution Control Act and the amendments to that act.

66. "Daily" means once during each day of the year.

67. "Day" means a day of the year.

68. "Department" means the Alabama Department of Environmental Management as established by Code of Alabama 1975, §22-22A-4.

69. "Designated facility" means:

(i) a hazardous waste treatment, storage, or disposal facility which:

(I) has received a permit (or interim status) in accordance with the requirements of 40 CFR, Parts 270 and 124,

(II) has received a permit (or interim status) from a state authorized in accordance with 40 CFR Part 271; or

(III) is regulated under 335-14-2-.01(6)(c)2. or 335-14-7-.06, and

(IV) that has been designated on the manifest by the generator pursuant to 335-14-3-.02(1).

70. "Designated facility" also means a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with 335-14-5-.05(3)(f) or 335-14-6-.05(3)(f).

(i) If a waste is destined to a facility in an authorized State which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving State to accept such waste.

71. "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in 335-14-11-.02(4)(a) and (c) and 335-14-11-.03(4)(a) and (c). A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

72. "Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

73. "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octachlorinated dibenzo dioxins and furans.

74. "Director" means the Director of the Department, appointed pursuant to Code of Ala. 1975, §22-22A-4, or his designee.

75. "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

76. "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters including groundwaters.

77. "Disposal facility" means a disposal site. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed but does include all hazardous waste management units within a corrective action management unit.

78. "Disposal site" means the location where any ultimate disposal of hazardous waste occurs.

79. "Do-it-yourselfer used oil collection center" means any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

80. “Domestic sewage” means untreated sanitary wastes that pass through a sewer system.

81. "Draft permit" for the purposes of 335-14-8 means a document prepared under 335-14-8-.08(4) indicating the Department's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit and a notice of intent to deny a permit are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination is not a draft permit. [See 335-14-8-.08(4).] A proposed permit is not a draft permit.

82. "Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

83. “Electronic manifest” or “e-Manifest” means the electronic format of the hazardous waste manifest that is obtained from EPA’s nation e-Manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22 (Manifest) and 8700-22A (Continuation Sheet).

84. “Electronic manifest system” or “e-Manifest system” means EPA’s national information technology system through which the electronic manifest may be obtained, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

85. "Elementary neutralization unit" means a device which:

(i) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in 335-14-2-.03(3), or they are listed in 335-14-2-.04 only for this reason; and

(ii) Meets the definition of a tank, tank system, container, transport vehicle, or vessel in this paragraph.

86. “Eligible academic entity” for the purposes of 335-14-3-.12 means a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

87. "Eligible Naturally Occurring and/or Accelerator-produced Radioactive Material (NARM)" for the purposes of 335-14-7-.14 is NARM that is eligible for the Transportation and Disposal Conditional Exemption. It is a NARM waste that contains RCRA hazardous waste, meets the waste acceptance criteria of, and is allowed by State of Alabama NARM regulations to be disposed of at a low-level radioactive waste disposal facility (LLRWDF) licensed in accordance with 10 CFR Part 61 or NRC Agreement State equivalent regulations.

88. "Emergency permit" for the purposes of 335-14-8 means a permit issued in accordance with 335-14-8-.06(1).

89. "Engineer" means a person registered as a licensed professional engineer with the Alabama Board of Licensure for Professional Engineers and Land Surveyors and practicing under the Rules of Professional Conduct, specifically Canon II.

90. "EPA" means the United States Environmental Protection Agency.

91. "EPA hazardous waste number" means the number assigned by EPA and the Department to each hazardous waste listed in 335-14-2-.04 and to each characteristic identified in 335-14-2-.03.

92. "EPA identification number" means the number assigned by EPA or the Department to each generator, transporter, and treatment, storage or disposal facility.

93. “Episodic event” means an activity or activities, either planned or unplanned, that does not normally occur during generator operations, resulting in an increase in the generation of hazardous wastes that exceeds the calendar month quantity limits for the generator's usual category.

94. "Equivalent method" means any testing or analytical method approved by the Department under 335-14-1-.03(1).

95. “Evaluated hazardous waste pharmaceutical” means a prescription hazardous waste pharmaceutical that has been evaluated by a reverse distributor in accordance with 335-14-7-.16(10)(a)3. and will not be sent to another reverse distributor for further evaluation or verification of manufacture credit.

96. “Excluded scrap metal” for the purposes of 335-14-2-.01 is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

97. "Exempted waste" for the purposes of 335-14-7-.14 means a waste that meets the eligibility criteria in 335-14-7-.14(3) and meets all of the conditions in 335-14-7-.14(4), or meets the eligibility criteria in 335-14-7-.14(12) and complies with all the conditions in 335-14-7-.14(13). Such waste is conditionally exempted from the regulatory definition of hazardous waste described in 335-14-2-.01(3).

98. "Existing aboveground used oil tank" means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced on or prior to the effective date of these rules. Installation will be considered to have commenced if the owner or operator has obtained all federal, State of Alabama, and local approvals or permits necessary to begin installation of the tank and if either:

(i) A continuous on-site installation program has begun, or

(ii) The owner or operator has entered into contractual obligations – which cannot be canceled or modified without substantial loss – for installation of the tank to be completed within a reasonable time.

99. "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility had commenced construction if:

(i) The owner or operator had obtained the Federal, State of Alabama, and local approvals or permits necessary to begin actual construction; and

(ii) Either

(I) a continuous on-site physical construction program had begun; or

(II) the owner or operator had entered into contractual obligations which could not be canceled or modified without substantial loss for physical construction of the facility to be completed within a reasonable time.

100. "Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

101. "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all Federal, State of Alabama, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(i) A continuous on-site physical construction or installation program has begun; or

(ii) The owner or operator has entered into contractual obligations - which cannot be canceled or modified without substantial loss - for physical construction of the site or installation of the tank system to be completed within a reasonable time.

102. "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

103. "Explosives or munitions emergency response" means all immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions and/or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities.

104. "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include Department of Defense (DOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and DOD-certified civilian or contractor personnel; and other Federal, State of Alabama, or local government, or civilian personnel similarly trained in explosives or munitions emergency responses.

105. "Extent of contamination" means the horizontal and vertical area in which the concentrations of hazardous constituents in environmental media are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Department.

106. "Facility" or "hazardous waste management facility" or "HWM facility" means:

(i) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials prior to reclamation. A facility may

consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

(ii) For the purpose of implementing corrective action under 335-14-5-.06(12), all contiguous property under the control of the owner or operator seeking a permit under Chapter 30 of Title 22, Code of Alabama 1975, (AHWMMA). This definition also applies to facilities implementing corrective action under §22-30-19 et seq., Code of Alabama 1975, and/or RCRA Section 3008(h).

(iii) Notwithstanding subparagraph (ii) of this definition, a remediation waste management site is not a facility that is subject to 335-14-5-.06(12), but is subject to corrective action requirements if the site is located within such a facility.

107. "Facility mailing list" for the purposes of 335-14-8 means the mailing list for a facility maintained by ADEM in accordance with 335-14-8-.08(6)(c)1.(iv).

108. "Facility owner" means a person who owns a facility. In most cases, this will be the "operator" or the "owner".

109. "Federal, State of Alabama and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State of Alabama, or local hazardous waste control statutes, regulations, or ordinances.

110. "FIFRA" means the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y).

111. "Final closure" means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under 335-14-5 and 335-14-6 are no longer conducted at the facility unless subject to the provisions in 335-14-3-.01(7)(a)8.

112. "Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

113. “Formal written affiliation agreement” for the purposes of 335-14-3-.12 for a non-profit research institute means a written document that establishes a relationship between institutions for the purposes of research and/or education and is signed by authorized representatives, as defined by 335-14-1-.02 for each institution. A relationship on a project-by-project basis or grant-by-grant basis is not considered a formal written affiliation agreement. A “formal written affiliation agreement” for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

114. "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

115. "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

116. "Functionally equivalent component" for the purposes of 335-14-8 means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

117. "Generator" means:

(i) Any person, by individual generation site, whose act or process produces hazardous waste identified or listed in 335-14-2 or whose act first causes a hazardous waste to become subject to regulation. The term generator includes those persons further defined as a large quantity generator, a small quantity generator, and/or a very small quantity generator.

(ii) For the purposes of 335-14-3-.08 is a person as defined in 335-14-1-.02, but such term shall not include the treatment, storage, disposal, or other management of solid or hazardous wastes received from off-site when the final disposal of the waste occurs at the same facility which treated, stored, or otherwise managed the waste.

118. "Geologist" means a person who holds a license as a professional geologist under the Alabama Professional Geologist Licensing Act.

119. "Groundwater" means water below the land surface in a zone of saturation.

120. "Hazardous constituents" are those substances listed in 335-14-2 Appendix VIII and/or 335-14-5 Appendix IX and include hazardous constituents released from solid waste, hazardous waste, or hazardous waste constituents that are reaction by-products.

121. “Hazardous secondary material” means a secondary material (e.g., spent material, by-product, or sludge) that, when discarded, would be identified as hazardous waste under 335-14-2.

122. “Hazardous secondary material generator” means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of this paragraph, “generating facility” means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes 335-14-2-.01(4)(a)23., a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

123. "Hazardous waste" means a hazardous waste as defined in 335-14-2-.01(3).

124. "Hazardous waste constituent" means a constituent that caused the Department to list the hazardous waste in 335-14-2-.04 or a constituent listed in Table 1 of 335-14-2-.03(5).

125. "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

126. "Hazardous waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in 335-14-2-.01(2), and exhibits one or more characteristics identified in 335-14-2-.03 or is listed in 335-14-2-.04. A pharmaceutical is not a solid waste, as defined in 335-14-2-.01(2), and therefore not a hazardous waste pharmaceutical, if it is legitimately used/reused (e.g., lawfully donated for its intended purpose) or reclaimed. An over-the-counter pharmaceutical, dietary supplement, or homeopathic drug is not a solid waste, as defined in 335-14-2-.01(2), and therefore not a hazardous waste pharmaceutical, if it has a reasonable expectation of being legitimately used/reused (e.g., lawfully redistributed for its intended purpose) or reclaimed.

127. "Healthcare facility" means any person that is lawfully authorized to:

(i) Provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or

(ii) Distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals. This definition includes, but is not limited to, wholesale distributors, third-party logistics providers that serve as forward distributors, military medical logistics facilities, hospitals, psychiatric hospitals, ambulatory surgical centers, health clinics, physicians' offices, optical and dental providers, chiropractors, long-term care facilities, ambulance services, pharmacies, long-term care pharmacies, mail-order pharmacies, retailers of pharmaceuticals, veterinary clinics, and veterinary hospitals. This definition does not include pharmaceutical manufacturers, reverse distributors, or reverse logistics centers.

128. "Home scrap metal" for the purposes of 335-14-2-.01 means scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

129. "Household waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in 335-14-2-.01(2), but is excluded from being a hazardous waste under 335-14-2-.01(4)(b)1.

130. "In operation" for the purposes of 335-14-8 refers to a facility which is treating, storing, or disposing of hazardous waste.

131. "Inactive portion" means that portion of a facility which is not operated after November 19, 1980. (See also "active portion" and "closed portion".)

132. "Inactive range" for the purposes of 335-14-7-.13 means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

133. "Incinerator" means any enclosed device that:

(i) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(ii) Meets the definition of infrared incinerator or plasma arc incinerator.

134. "Incompatible waste" means a hazardous waste which is unsuitable for:

(i) Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(ii) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases. (See Appendix V of 335-14-5 and 6 for examples.)

135. “Independent requirement” means a requirement of 335-14-3 that states an event, action, or standard that must occur or be met; and that applies without relation to, or irrespective of, the purpose of obtaining a conditional exemption from storage facility permit, interim status, and operating requirements under 335-14.

136. "Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

137. "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(i) Cement kilns;

(ii) Lime kilns;

(iii) Aggregate kilns;

(iv) Phosphate kilns;

(v) Coke ovens;

(vi) Blast furnaces;

(vii) Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);

(viii) Titanium dioxide chloride process oxidation reactors;

(ix) Methane reforming furnaces;

(x) Pulping liquor recovery furnaces;

(xi) Combustion devices used in the recovery of sulfur values from spent sulfuric acid; and

(xii) Halogen acid furnaces for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3 percent, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20 percent as generated.

(xiii) Such other devices as the Department may, after notice and comment, add to this list on the basis of one or more of the following factors:

(I) The design and use of the device primarily to accomplish recovery of material products;

(II) The use of the device to burn or reduce raw materials to make a material product;

(III) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

(IV) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(V) The use of the device in common industrial practice to produce a material product; and

(VI) Other factors, as appropriate.

138. "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

139. "Inground tank" means a device meeting the definition of "tank" in 335-14-1-.02 whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

140. "Injection well" means a bored, drilled, or driven shaft or dug hole which is used for the injection of pollutants. (See also "underground injection".)

141. "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

142. "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

143. “Intermediate facility” means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of such material.

144. "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

145. “Laboratory” for the purposes of 335-14-3-.12 means an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research (or diagnostic purposes at a teaching hospital) and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories (or diagnostic laboratories at teaching hospitals) are also considered laboratories.

146. “Laboratory clean-out” for the purposes of 335-14-3-.12 means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis (e.g., at the end of a semester or academic year) or as a result of a renovation, relocation, or change in laboratory supervisor/occupant. A regularly scheduled removal of unwanted material as required by 335-14-3-.12(9) does not qualify as a laboratory clean-out.

147. “Laboratory worker” for the purposes of 335-14-3-.12 means a person who handles chemicals and/or unwanted material in a laboratory and may include, but is not limited to, faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors/managers, and principal investigators. A person does not need to be paid or otherwise compensated for his/her work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

148. "Lamp", also referred to as "universal waste lamp", means the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

149. “Land-based unit” means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

150. "Land Disposal Restriction (LDR) treatment standards" for the purposes of 335-14-7-.14 means treatment standards, under 335-14-9, that a RCRA hazardous waste must meet before it can be disposed of in a RCRA hazardous waste land disposal unit.

151. "Land surveyor" means a person registered as a licensed Land Surveyor with the Alabama Board of Licensure for Professional Engineers and Land Surveyors and practicing under the Rules of Professional Conduct (Code of Ethics).

152. "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

153. "Land use controls" has the same meaning as in 335-15-1-.02.

154. "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave or a corrective action management unit.

155. "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

156. "Large Quantity Generator (LQG)" is a generator who generates any of the following amounts in a calendar month:

(i) Greater than or equal to 1,000 kilograms (2200 lbs) of non-acute hazardous waste; or

(ii) Greater than 1 kilogram (2.2 lbs) of acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e); or

(iii) Greater than 100 kilograms (220 lbs) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e). The generator's twelve month period is assigned by county in the “specified month schedule” located at 335-14-1-.02(1)(a).

157. "Large quantity handler of universal waste" means a universal waste handler (as defined in 335-14-1-.02) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000 kilogram limit is met or exceeded.

158. "Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

159. "Leak-detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

160. "License" for the purposes of 335-14-7-.14 means a license issued by the Nuclear Regulatory Commission, or NRC Agreement State, to users that manage radionuclides regulated by NRC, or NRC Agreement States, under authority of the Atomic Energy Act of 1954, as amended.

161. "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, waste pile, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

162. “Long-term care facility” means a licensed entity that provides assistance with activities of daily living, including managing and administering pharmaceuticals to one or more individuals at the facility. This definition includes, but is not limited to, hospice facilities, nursing facilities, skilled nursing facilities, and the nursing and skilled nursing care portions of continuing care retirement communities. Not included within the scope of this definition are group homes, independent living communities, assisted living facilities, and the independent and assisted living portions of continuing care retirement communities.

163. "Low-Level Mixed Waste (LLMW)" for the purposes of 335-14-7-.14 is a waste that contains both low-level radioactive waste and RCRA hazardous waste.

164. "Low-Level Radioactive Waste (LLW)" for the purposes of 335-14-7-.14 is a radioactive waste which contains source, special nuclear, or byproduct material, and which is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in section 11e.(2) of the Atomic Energy Act. (See also NRC definition of "waste" at 10 CFR 61.2)

165. "Low-Level Radioactive Waste Disposal Facility (LLRWDF)" for the purposes of 335-14-7-.14 is a disposal facility licensed by the NRC or an NRC Agreement State to dispose of low-level radioactive waste.

166. "Major facility" for the purposes of 335-14-8 means any facility or activity classed as such by the Department.

167. "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and/or disposal of hazardous waste.

168. "Manifest" means the shipping document EPA Form 8700-22 (including, if necessary, EPA Form 8700-22A), or the electronic manifest, originated and signed in accordance with the applicable requirements of 335-14-3 through 335-14-6.

169. "Manifest tracking number" means the alphanumeric identification number (i.e., a unique three letter suffix preceded by nine numerical digits), which is pre-printed in Item 4 of the Manifest by a registered source.

170. “Mercury-containing equipment” means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.

171. "Method detection limit or MDL" means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

172. "Military" for the purposes of 335-14-7-.13 means the Department of Defense (DOD), the Armed Services, Coast Guard, National Guard, Department of Energy (DOE), or other parties under contract or acting as an agent for the foregoing, who handle military munitions.

173. "Military munitions" means all ammunition products and components produced or used by or for the US Department of Defense or the US Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the US Coast Guard, the US Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices and nuclear components thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

174. "Military range" for the purposes of 335-14-7-.13 means designated land and water areas set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing

lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

175. "Mining overburden returned to the mine site" means any material overlaying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

176. "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR Part 146, containment building, corrective action management unit, unit eligible for a research, development and demonstration permit under 335-14-8-.06(4); or staging pile.

177. "Mixed waste" means a solid waste that is a mixture of hazardous waste [as defined in 335-14-2-.01(3)] and radioactive waste (as defined in 10 CFR 61.2). The radioactive component of mixed waste is subject to regulation by the Atomic Energy Act (AEA)/Nuclear Regulatory Commission (NRC). The non-radioactive chemically hazardous component of mixed waste is subject to regulation by the AHWMMA and ADEM Admin. Code Rule 335-14.

178. "Month" means a month of the year.

179. "Monthly" means once during each month of the year.

180. “Motor vehicle manufacturing” means the manufacture of automobiles and light trucks/utility vehicles (including light duty vans, pick-up trucks, minivans, and sport utility vehicles). Facilities must be engaged in manufacturing complete vehicles (body and chassis or unibody) or chassis only.

181. "Movement" means that hazardous waste transported to a facility in an individual vehicle.

182. "National Pollutant Discharge Elimination System" or "NPDES" means the program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and enforcing pretreatment requirements under the Alabama Water Pollution Control Act, Code of Alabama 1975, §§ 22-22-1 to 22-22-14, as amended, and the regulations in Division 6 of the Department's Administrative Code.

183. "Naturally Occurring and/or Accelerator-produced Radioactive Material (NARM)" for the purposes of 335-14-7-.14 means radioactive materials that:

(i) Are naturally occurring and are not source, special nuclear, or byproduct materials (as defined by the AEA) or

(ii) Are produced by an accelerator.

[**Note:** NARM is regulated by the States under State law, or by DOE (as authorized by the AEA) under DOE orders.]

184. "New aboveground used oil tank" means an aboveground tank that will be used to store or process used oil and for which installation has commenced after the effective date of these rules.

185. "New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced after November 19, 1980.

186. "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986; except, however, for purposes of 335-14-5-.10(4)(g)4. and 335-14-6-.10(4)(g)4., a new tank system is one for which construction commences after July 14, 1986. (See also "existing tank system".)

187. Non-acute hazardous waste means all hazardous wastes that are not acute hazardous waste, as defined 335-14-1-.02.

188. “Non-creditable hazardous waste pharmaceutical” means a prescription hazardous waste pharmaceutical that does not have a reasonable expectation to be eligible for manufacturer credit or a nonprescription hazardous waste pharmaceutical that does not have a reasonable expectation to be legitimately used/reused or reclaimed. This includes but is not limited to, investigational drugs, free samples of pharmaceuticals received by healthcare facilities, residues of pharmaceuticals remaining in empty containers, contaminated personal protective equipment, floor sweepings, and clean-up material from the spills of pharmaceuticals.

189. Non-hazardous waste pharmaceutical means a pharmaceutical that is a solid waste, as defined in 335-14-2-.01(2), and is not listed in 335-14-2-.04, and does not exhibit a characteristic identified in 335-14-2-.03.

190. “Non-pharmaceutical hazardous waste” means a solid waste, as defined in 335-14-2-.01(2), that is listed in 335-14-2-.04, or exhibits one or more characteristics identified in 335-14-2-.03, but is not a pharmaceutical, as defined in this 335-14-1-.02.

191. “Non-profit research institute” for the purposes of 335-14-3-.12 means an organization that conducts research as its primary function and files as a non-profit organization under the tax code of 26 U.S.C. 501(c)(3).

192. "NRC" for the purposes of 335-14-7-.14 means the U. S. Nuclear Regulatory Commission.

193. “No free liquids” for the purposes of 335-14-2-.01(4)(a)26. and 335-14-2-.01(4)(b)18. means that solvent-contaminated wipes may not contain free liquids as determined by Method 9095B (Paint Filter Liquids Test), included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (EPA Publication SW-846), which is incorporated by reference, and that there is no free liquid in the container holding the wipes. No free liquids may also be determined using another standard or test method as defined by the Department.

194. "One-time shipment" means a unique waste received at a commercial hazardous waste disposal facility which originated from a single generator and is not routinely produced by that generator on a regularly recurring basis. Such waste would include, but would not be limited to, lab packs. Other examples might include spill cleanups, or the removal of obsolete or outdated commercial chemicals.

195. "Onground tank" means a device meeting the definition of "tank" in 335-14-1-.02 and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

196. "On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he/she controls and to which the public does not have access, are also considered on-site property.

197. "Open burning" means the combustion of any material without the following characteristics:

(i) Control of combustion air to maintain adequate temperature for efficient combustion;

(ii) Containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(iii) Control of emission of the gaseous combustion products.

198. "Operating day" means any day on which hazardous waste is treated, stored, or disposed of in a unit. For example, each day that a hazardous waste storage unit contains hazardous waste is an operating day; as is each day that a disposal unit contains or receives hazardous waste, or each day that hazardous waste is treated in a treatment unit.

199. "Operating facility" as used in 335-14-5-.08 and 335-14-6-.08 means a facility with active treatment, storage, and/or disposal units subject to the requirements of 335-14-5, 335-14-6, and 335-14-8.

200. "Operator" means the person responsible for the overall operation of a facility.

201. "Other wastes" are wastes as defined in 335-14-1-.02 that are not hazardous waste as defined in 335-14-2-.01.

202. "Owner" means the person who owns in fee simple the property on which a facility or part of a facility is sited.

203. "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

204. "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of 335-14-5 and 335-14-6 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

205. "Permit" for the purposes of 335-14-8 means an authorization or equivalent control document issued by the Department to implement the requirements of 335-14-8. Permit does not include any authorization which has not been the subject of final administrative action, such as a draft permit or a proposed permit; but permit does include interim status permits to the extent set out in 335-14-8-.07.

206. "Person" means any and all persons, natural or artificial, including, but not limited to any individual, partnership, association, society, joint stock company, firm company, corporation, institution, trust, estate, or other legal entity or other business organization or any governmental entity, and any successor, representative, agent or agency of the foregoing.

207. "Personnel" or "facility personnel" means all persons who work at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of 335-14-5 or 335-14-6.

208. "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(i) Is a new animal drug under the Federal Food, Drug, and Cosmetic Act (FFDCA) section 201(w); or

(ii) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug; or

(iii) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by paragraph (i) or (ii) of this definition; or

(iv) Is an animal feed under FFDCA Section 201(x) that bears or contains any substances described by 335-14-11-.01(3)(a) or (b).

209. "Petroleum refining facility" means an establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

210. “Pharmaceutical” means any drug or dietary supplement for use by humans or other animals; any electronic nicotine delivery system (e.g., electronic cigarette or vaping pen); or any liquid nicotine (e-liquid) packaged for retail sale for use in electronic nicotine delivery systems (e.g., pre-filled cartridges or vials). This definition includes, but is not limited to, dietary supplements, as defined by the Federal Food, Drug and Cosmetic Act; prescription drugs, as defined by 21 CFR 203.3(y); over-the-counter drugs; homeopathic drugs; compounded drugs; investigational new drugs; pharmaceuticals remaining in non-empty containers; personal protective equipment contaminated with pharmaceuticals; and clean-up material from spills of pharmaceuticals. This definition does not include dental amalgam or sharps.

211. "Physical construction" for the purposes of 335-14-8 means excavation, movement of earth, erection of forms or structures, or similar activity to prepare a hazardous waste management facility to accept hazardous waste.

212. "Pile" means any non-containerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage and that is not a containment building.

213. “Planned episodic event” means an episodic event that the generator planned and prepared for, including regular maintenance, tank cleanouts, short-term projects, and removal of excess chemical inventory.

214. "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

215. "Plastic" means the non-metallic compounds that result from a chemical reaction and are molded or formed into rigid or pliable construction materials.

216. "Plastic battery chips" for the purposes of 335-14-7 means whole components and any pieces thereof which are constructed of plastic and utilized in a lead-acid battery.

217. "Plates and groups" for the purposes of 335-14-7 means the internal components of a lead-acid battery which are constructed of lead and/or lead alloys. Plates and groups shall be considered a spent material (solid waste) and a hazardous waste (D008) due to the concentration of leachable lead therein.

218. "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

219. "Post-closure facility" as used in 335-14-5-.08 and 335-14-6-.08 means a facility at which all treatment, storage, and/or disposal units have been closed in accordance with 335-14-5-.07 or 335-14-6-.07, at which the owner or operator is unable to demonstrate closure by removal in accordance with 335-14-8-.01(1)(c)5., for one or more units.

220. "Post-closure only permit" for the purposes of 335-14-8 means a permit for a facility at which the only hazardous waste treatment, storage, or disposal activities conducted which require a permit pursuant to 335-14-8 are activities related to the post-closure care, monitoring, and/or corrective actions performed at closed hazardous waste management units. Corrective actions specified in post-closure only permits shall include activities related to regulated hazardous waste management units as well as solid waste management units (SWMU) and areas of concern (AOC).

221. "Post-closure permit" for the purposes of 335-14-8 means a permit which addresses the post-closure care requirements for closed hazardous waste treatment, storage, or disposal unit(s) at a facility. The term "post-closure permit" includes both post-closure only permits and the post-closure care portions of operating permits.

222. "Post-closure plan" as used in 335-14-5-.08 and 335-14-6-.08 means the plan for post-closure care prepared in accordance with the requirements of 335-14-5-.07(8) through (11) or 335-14-6-.07(8) through (11).

223. “Potentially creditable hazardous waste pharmaceutical” means a prescription hazardous waste pharmaceutical that has a reasonable expectation to receive manufacturer credit and is:

(i) In original manufacturer packaging (except pharmaceuticals that were subject to a recall);

(ii) Undispensed; and

(iii) Unexpired or less than one year past expiration date. The term does not include evaluated hazardous waste pharmaceuticals or nonprescription pharmaceuticals including, but not limited to, over-the-counter drugs, homeopathic drugs, and dietary supplements.

224. "Privatized municipal waste treatment facility" means a facility which is operated to treat domestic and/or industrial wastewaters from a municipality or industrial park and which otherwise meets the definition of a publicly owned treatment works (POTW), but which is not publicly owned.

225. “Processed scrap metal” for the purposes of 335-14-2-.01 means scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (i.e., sorted), and, fines, drosses and related materials which have been agglomerated.

[**Note:** Shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled [335-14-2-.01(4)(a)14.].

226. “Prompt scrap metal” for the purposes of 335-14-2-.01 means scrap metal as generated by the metal working/fabrication industries and includes such scrap

metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

227. "Publicly owned treatment works" or "POTW" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by the State of Alabama or municipality [as defined by section 502(4) of the Clean Water Act]. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

228. "Qualified Groundwater Scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by State of Alabama registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

229. "Quarter" means a period of three consecutive months.

230. "Quarterly" means once during each period of three consecutive months for a total of four times each calendar year.

231. "RCRA" means the Federal Resource Conservation and Recovery Act of 1976, as amended, (42 U.S.C. §6901 et seq.).

232. “Reactive acutely hazardous unwanted material” for the purposes of 335-14-3-.12 means an unwanted material that is one of the acutely hazardous commercial chemical products listed in 335-14-2-.04(4)(e) for reactivity.

233. "Reclaimed" for the purposes of 335-14-2-.01 means a material that is processed to recover a usable product, or one that is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. In addition, for purposes of 335-14-2-.01(4)(a)23. and 335-14-2-.01(4)(a)24, smelting, melting, and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in 335-14-7-.08, and if the residuals meet the requirements specified in 335-14-7-.08.

234. "Recycled" for the purposes of 335-14-2-.01 means a material is used, reused, or reclaimed.

235. "Regional Administrator" means the Regional Administrator for the EPA Region in which the facility is located, or his designee.

236. "Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, escaping, leaching, pumping, or disposing into the environment of any hazardous waste or hazardous constituent.

237. “Remanufacturing” means processing a higher-value hazardous secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For the purpose of this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

238. "Remediation waste" means all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that are managed for implementing cleanup, pursuant to the requirements of 335-14-5-.19(1), (2), and (3).

239. "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under 335-14-5-.06(12), but is subject to corrective action requirements if the site is located in such a facility.

240. "Replacement unit" means a landfill, surface impoundment, or waste pile unit [1] from which all or substantially all of the waste is removed, and [2] that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility in accordance with an approved closure plan or EPA or State of Alabama approved corrective action.

241. "Representative sample" means a sample of a universe or whole (e.g., waste pile, lagoon, groundwater) which can be expected to exhibit the average properties of the universe or whole.

242. "Re-refining distillation bottoms" means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

243. “Reverse distributor” means any person that receives and accumulates prescription pharmaceuticals that are potentially creditable hazardous waste pharmaceuticals for the purpose of facilitating or verifying manufacturer credit. Any person, including forward distributors, third-party logistics providers, and pharmaceutical manufacturers, that processes prescription pharmaceuticals for the facilitation or verification of manufacturer credit is considered a reverse distributor.

244. "Rubber" means any of numerous synthetic elastic materials of varying chemical composition with properties similar to those of natural rubber.

245. "Rubber battery chips" for the purposes of 335-14-7 means whole components and any pieces thereof which are constructed of rubber and utilized in a lead-acid battery.

246. "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

247. "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

248. "Satellite accumulation" means accumulation of as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste as listed in 335-14-2-.04(4)(e) in containers at or near any point of generation where the wastes initially accumulates, provided the generator complies with 335-14-3-.01(5).

249. "Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

250. "Schedule of compliance" for the purposes of 335-14-8 means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements leading to compliance with the AHWMMA and Division 335-14.

251. "Scrap metal" for the purposes of 335-14-2-.01 means bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars) which when worn or superfluous can be recycled.

252. "SDWA" or the "Safe Drinking Water Act" for the purposes of 335-14-8 means Code of Alabama 1975, §§ 22-23-30 to 22-23-54, as amended.

253. "Semi-annual" means a six month period.

254. "Semi-annually" means once during each six month period for a total of two times each calendar year.

255. "Site" means the land or water area where any facility, generator, or activity is physically located or conducted, including adjacent land used in connection with the facility, generator, or activity.

256. "Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

257. "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu/lb. of sludge treated on a wet-weight basis.

258. "Small Quantity Generator (SQG)" is a generator who generates the following amounts in a calendar month:

(i) Greater than 100 kilograms (220 lbs) but less than 1,000 kilograms (2200 lbs) of non-acute hazardous waste; and

(ii) Less than or equal to 1 kilogram (2.2 lbs) of acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e); and

(iii) Less than or equal to 100 kilograms (220 lbs) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e). The generator's twelve month period is assigned by county in the "specified month schedule" located at 335-14-1-.02(1)(a).

259. "Small quantity handler of universal waste" means a universal waste handler (as defined in 335-14-1-.02) who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

260. "Solid waste" means a waste as defined by 335-14-2-.01(2).

261. "Solid waste management unit" or "SWMU" includes any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. Units subject to regulation under 335-14-5, 335-14-6, 335-14-7, or 335-14-8 are also solid waste management units. SWMU's include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g., product or process spills).

262. "Solvent-contaminated wipe" means a wipe that, after the use or after cleaning up a spill, either (1) contains one or more of the F001 through F005 solvents listed in 335-14-2-.04(2) or the corresponding P- or U- listed solvents found in 335-14-2-.04(4); (2) exhibits a hazardous characteristic found in 335-14-2-.03 when that characteristic results from a solvent listed in 335-14-2; and/or (3) exhibits only the hazardous waste characteristic of ignitability found in 335-14-2-.03(2) due to the presence of one or more solvents that are not listed in 335-14-2. Solvent-contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions in 335-14-2-.01(4)(a)26. and 335-14-2-.01(4)(b)18.

263. "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both. "Sorb" means to either adsorb or absorb, or both.

264. "Specified month schedule" for the purposes of the "Annual Submission of ADEM Form 8700 12" is defined by the chart below according to the county in which the facility is located.

If your site of waste generation is located in the county of ...	Submit ADEM Form 8700-12 by the 15th of ...
Colbert, Fayette, Franklin, Greene, Hale, Lamar, Lauderdale, Lawrence, Limestone, Marion, Morgan, Pickens, Sumter, Tuscaloosa, Walker, Winston	February
Blount, Cherokee, Cullman, DeKalb, Etowah, Jackson, Madison, Marshall, St. Clair	April
Jefferson	June
Calhoun, Chambers, Clay, Cleburne, Coosa, Elmore, Lee, Macon, Montgomery, Randolph, Shelby, Talladega, Tallapoosa	August
Autauga, Baldwin, Barbour, Bibb, Bullock, Butler, Chilton, Choctaw, Clarke, Coffee, Conecuh, Covington, Crenshaw, Dale, Dallas, Escambia, Geneva, Henry, Houston, Lowndes, Marengo, Monroe, Perry, Pike, Russell, Washington, Wilcox	October
Mobile	December

265. "Spent materials" for the purposes of 335-14-2-.01 and 335-14-7 means those materials which have been used, and as a result of that use become contaminated by physical or chemical impurities, and can no longer serve the purpose for which they were produced without being regenerated, reclaimed, or otherwise reprocessed. For the purposes of 335-14-7, spent materials shall include all battery components, including but not limited to plates and groups, plastic and rubber battery chips, paper/cellulose materials and acid removed from a spent lead-acid battery.

(i) Contamination means any impurity, factor, or circumstance that causes the material to be taken out of service for reprocessing.

(ii) The portion of the definition stating a spent material "can no longer serve the purpose for which they were produced" is satisfied when the material is no longer serving its original purpose and is being reprocessed or being accumulated prior to reprocessing.

266. "Spill" means the unplanned, accidental, or unpermitted discharge, deposit, injection, leaking, pumping, pouring, emitting, dumping, placing, or releasing of hazardous wastes, or materials which when spilled become hazardous wastes, into or on the land, the air, or the water.

267. "Staging pile" means an accumulation of solid, non-flowing remediation waste (as defined in 335-14-1-.02) that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles must be designated by the Department according to the requirements of 335-14-5-.19(3).

268. "State" means any of the United States except the State of Alabama.

269. "Storage" means the actual or intended containment of wastes, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such wastes.

270. "Storage facility" means any facility or part of a facility at which hazardous waste is placed in storage, exclusive of transfer facilities where waste is stored for ten days or less and on-site storage by generators in compliance with 335-14-3.

271. "Storm event" means a 1-year, 24-hour storm event or rainfall which measures 1 inch or greater in 1 hour or less as determined by measurements taken at the facility, or the closest official weather monitoring station.

272. "Substantial business relationship" means the extent of a business relationship necessary under applicable State of Alabama law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Department.

273. "Sump" means any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

274. "Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

275. "SWMU corrective action facility" for the purposes of 335-14-5-.08 means a facility which is subject to the requirements of 335-14-5-.06(12) for the corrective action of Solid Waste Management Units, and has been issued a permit or an enforceable document (as defined in 335-14-8-.01(1)(c)7.) in accordance with 335-14-8 or an order pursuant to Section 3008(h) of RCRA.

276. "Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

277. "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

278. “Teaching hospital” for the purposes of 335-14-3-.12 means a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

279. "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

280. "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

281. "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 335-14-11-.02(4)(c)2. or 335-14-11-.03(4)(c)2.

282. "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized. An owner or operator who removes hazardous waste from a totally enclosed treatment system must comply with the applicable standards set forth in 335-14-3 with respect to any hazardous waste removed from the totally enclosed treatment facility. An owner or operator who removes hazardous waste from a totally enclosed treatment facility may not reintroduce the waste into the totally enclosed treatment facility unless the owner/operator has first complied with the applicable standards and permit requirements set forth in 335-14-5, 335-14-6, 335-14-8, and 335-14-9.

283. "Trade secret" includes, but is not limited to, any formula, plan, pattern, process, tool, mechanism, compound or procedure, as well as production data or compilation of information, financial and marketing data, which is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce or compound an article of trade or a service having commercial value, and which gives its user an opportunity to obtain a business advantage over competitors who do not know of it.

284. “Trained professional” for the purposes of 335-14-3-.12 means a person who has completed the applicable RCRA training requirements of 335-14-3-.01(7)(a)7. for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with 335-14-3-.01(6) for small quantity generators and very small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

285. "Transfer facility" means any transportation-related facilities including loading docks, parking areas, storage areas, and other related areas where shipments of hazardous waste or hazardous secondary materials are held for more than 24 hours and not longer than 10 days during the normal course of transportation. Transfer facilities that store hazardous waste for more than 10 days are subject to regulation as a storage facility under 335-14-5, 335-14-6, 335-14-8, and 335-14-9.

286. "Transport vehicle" means a motor vehicle or railcar used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

287. "Transportation" means the movement of wastes from the point of generation to any intermediate transfer points, and finally to the disposal site.

288. "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

289. "Treatability study" means a study in which a hazardous waste is subjected to a treatment process to determine: [1] whether the waste is amenable to the treatment process, [2] what pretreatment (if any) is required, [3] the optimal process conditions needed to achieve the desired treatment, [4] the efficiency of a treatment process for a specific waste or wastes, or [5] the characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purpose of 335-14-2-.01(4)(e) and (f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

290. "Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to render such waste non-hazardous or less hazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it non-hazardous or less hazardous.

291. "Treatment facility" means a location at which wastes are subjected to treatment, and may include a facility where waste has been generated.

292. "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed or immobilized.

293. "Underground injection" means the injection of pollutants through a bored, drilled or driven shaft or dug hole.

294. "Underground source of drinking water" or "USDW" for the purposes of 335-14-8 means an aquifer or its portion:

(I) Which supplies any public water system; or

(II) Which contains a sufficient quantity of groundwater to supply a public water system; and

(III) Currently supplies drinking water for human consumption; or

(IV) Contains fewer than 10,000 mg/liter total dissolved solids; and

(ii) Which is not an exempted aquifer.

295. "Underground tank" means a device meeting the definition of "tank" in 335-14-1-.02 whose entire surface area is totally below the surface of and covered by the ground.

296. "Unexploded ordnance (UXO)" for the purposes of 335-14-7-.13 means military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

297. "Unfit-for-use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

298. “Universal waste" means any of the following hazardous wastes that are subject to the universal waste requirements of 335-14-11:

(i) Batteries as described in 335-14-11-.01(2);

(ii) Pesticides as described in 335-14-11-.01(3);

(iii) Mercury-containing equipment as described in 335-14-11-.01(4);

(iv) Lamps as described in 335-14-11-.01(5); and

(v) Aerosol cans as described in 335-14-11-.01(6).

299. "Universal waste handler":

(i) Means:

(I) A generator (as defined in 335-14-1-.02) of universal waste; or

(II) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(ii) Does not mean:

(I) A person who treats [except under the provisions of 335-14-8-.01(1)(c)2.(ix), 335-14-11-.02(4)(a) or (c) or 335-14-11-.03(4)(a) or (c)], disposes of, or recycles [except under the provisions of 335-14-11-.02(4)(e) or 335-14-11-.03(4)(e)] universal waste; or

(II) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

300. "Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

301. "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

302. "Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

303. “Unplanned episodic event” means an episodic event that the generator did not plan or reasonably did not expect to occur, including production process upsets, product recalls, accidental spills, or “acts of nature,” such as tornado, hurricane, or flood.

304. “Unwanted material” for the purposes of 335-14-3-.12 means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste pursuant to 335-14-2-.01(2), or a hazardous waste pursuant to 335-14-2-.01(3). If an eligible academic entity elects to use another equally effective term in lieu of “unwanted material,” as allowed by 335-14-3-.12(7)(a)1.(i), the equally effective term has the same meaning and is subject to the same requirements as “unwanted material”.

305. "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

306. "Used" or "reused" for the purposes of 335-14-2-.01 a material is used or reused if it is either:

(i) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(ii) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

307. "Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use, is contaminated by physical or chemical impurities.

308. "Used oil aggregation point" means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

309. "Used oil burner" means a facility where used oil not meeting the specification requirements in 335-14-17-.02(2) is burned for energy recovery in devices identified in 335-14-17-.07(2)(a).

310. "Used oil collection center" means any site or facility that is recognized by the Department, in accordance with 335-14-17-.04(2)(b) and accepts/aggregates and stores used oil collected from used oil generators regulated under 335-14-17-.03 who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of 335-14-17-.03(6). Used oil collection centers may also accept used oil from household do-it-yourselfers.

311. "Used oil fuel marketer" means any person who conducts either of the following activities:

(i) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(ii) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in 335-14-17-.02(2).

312. "Used oil generator" means any person, by individual generation site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

313. "Used oil processing" means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of fuel oils, lubricants, or other used oil-derived products. Used oil processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

314. "Used oil processor/re-refiner" means a facility that processes used oil.

315. "Used oil tank" means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

316. "Used oil transfer facility" means any transportation related facility including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed pursuant to 335-14-17-.03(1)(b)2. Transfer facilities that store used oil for more than 35 days are subject to regulation under 335-14-17-.06.

317. "Used oil transporter" means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental used oil processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

318. “User of the electronic manifest system” means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that:

(i) Is required to use a manifest to comply with:

(I) Any federal or state requirement to track the shipment, transportation, and receipt of hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal; or

(II) Any federal or state requirement to track the shipment, transportation, and receipt of rejected wastes or regulated container residues that are shipped from a designated facility to an alternative facility, or returned to the generator; and

(ii) Elects to use the system to obtain, complete and transmit an electronic manifest format supplied by the EPA electronic manifest system, or

(iii) Elects to use the paper manifest form and submits to the system for data processing purposes a paper copy of the manifest (or data from such a paper copy), in accordance with 335-14-5-.05(2)(a)1.(v) or 335-14-6-.05(2)(a)1.(v). These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

319. "Very Small Quantity Generator (VSQG)" is a generator who generates less than or equal to the following amounts in a calendar month:

(i) 100 kilograms (220 lbs) of nonacute hazardous waste; and

(ii) 1 kilogram (2.2 lbs) of acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e); and

(iii) 100 kilograms (220 lbs) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e).

320. "Vessel" means every description of watercraft, used or capable of being used as a means of transportation on the water.

321. "Waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, including any material to be discarded by a generator, but such term does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under 33 U.S.C. §1342 or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.

322. "Waste stream" for the purposes of 335-14-3-.08 means a waste of given characteristics that is unique to a particular process or individual generation site.

323. "Wastewater treatment unit" means a device which:

(i) Is part of a wastewater treatment facility that is subject to regulation under either Section 402 or 307(b) of the Clean Water Act; and

(ii) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in 335-14-2-.01(3), or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 335-14-2-.01(3), or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in 335-14-2-.01(3); and

(iii) Meets the definition of tank or tank system in 335-14-1-.02.

324. "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

325. "Week" means a calendar week (e.g., Sunday-Saturday).

326. "Weekly" means once during each calendar week.

327. "Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

328. "Well injection" means "underground injection".

329. “Wipe” means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

330. “Working container” for the purposes of 335-14-3-.12 means a small container (i.e., two gallons or less) that is in use at a laboratory bench, hood, or other work station, to collect unwanted material from a laboratory experiment or procedure.

331. "Working day" for the purposes of 335-14-3-.08 means any day, Monday through Friday, on which the offices of the Alabama Department of Environmental Management are open for business, and shall not include weekends or any State of Alabama observed holiday.

332. "Zone of engineering control" means an area under the control of the owner/operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to groundwater or surface water.

333. The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

(i) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

(ii) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(iii) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(iv) "Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 40 CFR §144.62(a), (b), and (c) or any State equivalent.

(v) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

(vi) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(vii) "Net working capital" means current assets minus current liabilities.

(viii) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

(ix) "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

334. In the liability insurance requirements the terms "bodily injury" and "property damage" shall have the meanings given these terms by applicable State of Alabama law. However, these terms do not include those liabilities which, consistent with standard industry practice, are excluded from coverage in liability policies for bodily injury and property damage. The Department intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

(i) "Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

(ii) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

(iii) "Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

(iv) "Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

(2) References.

The Environmental Protection Agency Regulations as they exist as set forth in 40 CFR § 260.11(as published on June 14, 2005, and as amended on September 8, 2005; October 12, 2005; July 18, 2007; and May 18, 2012) are incorporated herein by reference.

A list of the publications and analytical testing methods incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Authors: Stephen C. Maurer; Stephen A. Cobb; Steven O. Jenkins; Robert W. Barr; Lynn T. Roper; Edwin C. Johnston; Kelley Lockhart; Vernon H. Crockett; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Corey S. Holmes; Metz P. Duites; Linda J. Knickerbocker; Sonja B. Favors; Brent A. Watson; Jonah L. Harris
Statutory Authority: Code of Alabama 1975, §§ 22-30-3 and 22-30-11.
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August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: April 2, 1991; **Amended:** Effective: January 25, 1992; **Amended:** Effective: January 1, 1993; **Amended:** Effective: January 5, 1995; **Amended:** Effective: January 12, 1996; **Amended:** Effective: March 28, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 2, 1999; **Amended:** Effective: March 31, 2000; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: April 17, 2003; **Amended:** Effective: May 27, 2004; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: May 27, 2008; **Amended:** Effective: March 31, 2009; **Amended:** Effective: March 30, 2010; **Amended:** Effective: March 31, 2011; **Amended:** Effective: April 3, 2012; **Amended:** Effective: March 26, 2013; **Amended:** Effective: March 31, 2015; **Amended:** Effective: April 8, 2016; **Amended:** Effective: March 31, 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019; **Amended:** Filed: February 28, 2019; Effective: April 13, 2020; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-1-.03 **Rulemaking Petitions**

(1) Petitions for equivalent testing or analytical methods.

(a) Any person seeking to add a testing or analytical method to Chapters 335-14-2, 335-14-5 or 335-14-6 may petition for such addition under 335-14-1-.03(1). To be successful the person must demonstrate to the satisfaction of the Director that the proposed method is equal to or superior to the corresponding method prescribed in Chapters 335-14-2, 335-14-5 or 335-14-6, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

(b) Each petition must be submitted to the Department by certified mail and must include:

1. The petitioner's name and address;

2. A statement of the petitioner's interest in the proposed action;

3. A statement of the need and justification for the proposed action;

4. A full description of the proposed method, including all procedural steps and equipment used in the method;

5. A description of the types of waste or waste matrices for which the proposed method may be used;

6. Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in Chapters 335-14-2, 335-14-5 or 335-14-6;

7. An assessment of any factors which may interfere with, or limit the use of, the proposed method;

8. A description of the quality control procedures necessary to ensure the sensitivity, accuracy, and precision of the proposed method; and

9. A copy of the Federal Register notice indicating that EPA has added the testing or analytical method to 40 CFR Parts 261, 264 or 265.

(c) After receiving a petition for an equivalent method, the Department may request any additional information on the proposed method which it may reasonably require to evaluate the method.

(d) If the Director permits the use of a new testing method, the applicant will be notified and allowed to use the method pending the next revision of Division 335-14. When Division 335-14 is next amended after such a determination, the equivalent method will be proposed to be added to the rules and will be treated as any other rule amendment under Code of Alabama 1975, §22-22A-8.

(2) Petitions to amend Chapter 335-14-2 to exclude a waste produced at a particular facility.

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in 335-14-2-.04 may petition for such exclusion under 335-14-1-.03(2). To be successful:

1. The petitioner must demonstrate to the satisfaction of the Director that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste; and

2. Based on a complete application [335-14-1-.03(2)(i)], the Director must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of 335-14-2-.03.

(b) The procedures in rules 335-14-1-.03(2) and 335-14-1-.03 may also be used to petition the Director for a regulatory amendment to exclude from 335-14-2-.01(3)(a)2.(ii) or (c), a waste which is described in these subparagraphs and is either a waste listed in 335-14-2-.04 or is derived from a waste listed in 335-14-2-.04. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner must make the same demonstration as required by 335-14-1-.03(2)(a). Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration must be made with respect to the waste mixture as a whole; analyses must be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of 335-14-2-.03.

(c) If the waste is listed with codes “I”, “C”, “R”, or “E” in 335-14-2-.04,

1. The petitioner must show that the waste does not exhibit the relevant characteristic for which the waste was listed as defined in rules 335-14-2-.03(2), (3), (4), or (5) using any applicable methods prescribed therein. The petitioner also must show that the waste does not exhibit any of the other characteristics defined in rules 335-14-2-.03(2), (3), (4), or (5) using any applicable methods prescribed therein;

2. Based on a complete application, the Director must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of 335-14-2-.03;

(d) If the waste is listed with code "T" in 335-14-2-.04,

1. The petitioner must demonstrate that the waste:

(i) Does not contain the constituent or constituents (as defined in 335-14-2 Appendix VII) that caused the Department to list the waste; or

(ii) Although containing one or more of the hazardous constituents (as defined in 335-14-2 Appendix VII) that caused the Department to list the waste, does not meet the criterion of 335-14-2-.02(2)(a)3. when considering the factors used by the Department in rules 335-14-2-.02(2)(a)3.(i) through (xi) under which the waste was listed as hazardous; and

2. Based on a complete application, the Director must determine, where he has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

3. The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in rules 335-14-2-.03(2), (3), (4), or (5) using any applicable methods prescribed therein;

4. A waste which is so excluded, however, still may be a hazardous waste by operation of 335-14-2-.03.

(e) If the waste is listed with the code "H" in 335-14-2-.04,

1. The petitioner must demonstrate that the waste does not meet the criterion of 335-14-2-.02(2)(a)2.; and

2. Based on a complete application, the Director must determine, where he has a reasonable basis to believe that additional factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

3. The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in rules 335-14-2-.03(2), (3), (4), and (5) using any applicable methods prescribed therein;

4. A waste which is so excluded, however, still may be a hazardous waste by operation of 335-14-2-.03.

(f) If a solid waste at a particular generating facility fails the test for the characteristic of toxicity described in 335-14-2-.03(5) because chromium is present or is listed in 335-14-2-.04 due to the presence of chromium, but does not fail the test for the toxicity characteristic for any other constituent and is not listed for any other constituent, the waste may be excluded from regulation as a hazardous waste, if the petitioner can demonstrate all of the following:

1. The waste meets the criteria for exclusion as described in 335-14-2-.01(4)(b)6.(i).

2. Where the waste is a mixture of solid waste and one or more listed or hazardous wastes or is derived from one or more hazardous wastes, this demonstration must be made with respect to the waste mixture as a whole; analyses must be conducted for not only chromium but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste.

3. Based on a complete application [335-14-1-.03(2)(i)], the Director must determine, where he has a reasonable basis to believe that other factors (including additional constituents) could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste.

(g) [Reserved]

(h) Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition must be submitted to the Department by certified mail and must include:

1. The petitioner's name and address;

2. A statement of the petitioner's interest in the proposed action;

3. A statement of the need and justification for the proposed action;

4. The name and address of the laboratory facility performing the sampling or tests of the waste;

5. The names and qualifications of the persons sampling and testing the waste;

6. The dates of sampling and testing;

7. The location of the generating facility;

8. A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations or feed materials can or might produce a waste that is not covered by the demonstration;

9. A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

10. Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in 335-14-2-.02(2)(a)3.; or for a trivalent chromium waste, the exclusion criteria in 335-14-2-.01(4)(b)6.(i);

11. A description of the methodologies and equipment used to obtain the representative samples;

12. A description of the sample handling and preparation techniques used for extraction, containerization, and preservation of the samples;

13. A description of the tests performed (including results);

14. The names and model numbers of the instruments used in performing the tests; and

15. The following statement signed by the generator of the waste:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(j) After receiving a petition for an exclusion, the Department may request any additional information which it may reasonably require to evaluate the petition. This may include, but is not limited to, samples of the waste collected and analyzed by the Department.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

(l) The Director may exclude only part of the waste for which the demonstration is submitted where he has reason to believe that variability of the waste justifies a partial exclusion.

(m) The Department will evaluate the application and issue a draft notice tentatively granting or denying the exclusion. Notification of the tentative decision will be provided by a onetime publication of notice in a daily or weekly major local

newspaper of general circulation in the locality where the generator is located. The Department will accept comment on the tentative decision for a minimum of 30 days and may hold a hearing at its discretion. The Director will issue a final decision after the close of the comment period and hearing (if any).

(3) Petitions to amend Chapter 335-14-11 to include additional hazardous wastes.

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to the universal waste regulations of Chapter 335-14-11, may petition for a regulatory amendment under rules 335-14-1-.03(3) and 335-14-11-.07.

(b) To be successful, the petitioner must demonstrate to the satisfaction of the Director that regulation under the universal waste regulations of Chapter 335-14-11 is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. Each petition must be submitted to the Department by certified mail and must include:

1. The petitioner's name and address;

2. A statement of the petitioner's interest in the proposed action;

3. A description of the proposed action, including (where appropriate) suggested regulatory language; and

4. A statement of the need and justification of the proposed action, including any supporting tests, studies, or other information. The petition should also address as many of the factors listed in 335-14-11-.07(2) as are appropriate for the waste or category of waste addressed in the petition.

(c) The Director will grant or deny a petition using the factors listed in 335-14-11-.07(2). The decision will be based on the weight of evidence showing that regulation under Chapter 335-14-11 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

(d) The Director may request additional information needed to evaluate the merits of the petition.

(e) The Department will evaluate the application and issue a draft notice tentatively granting or denying the addition of hazardous waste or category of hazardous waste to the universal waste regulations of Chapter 335-14-11. Notification of the tentative decision will be provided by a one-time publication of notice in a daily or weekly major local newspaper of general circulation in the locality where the generator is located. The Department will accept comment on the tentative decision for a minimum of 30 days and may hold a hearing at its discretion. The Director will issue a final decision after the close of the comment period and hearing (if any).

(4) through (9) [Reserved]

(10) Non-waste determinations and variances from classification as a solid waste. In accordance with the standards and criteria in 335-14-1-.03(11) and 335-14-1-.03(14) and the procedures in 335-14-1-.03(13), the Department may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in 335-14-1-.02);

(b) Materials that are reclaimed and then reused within the original production process in which they were generated;

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered;

(d) Hazardous secondary materials that are reclaimed in a continuous industrial process; and

(e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate.

(11) Standards and criteria for variances from classification as a solid waste.

(a) The Director may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Director's decision will be based on the following criteria:

1. The manner in which the material is expected to be recycled, when the material is expected to be recycled and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material or contractual arrangements for recycling);

2. The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

3. The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

4. The extent to which the material is handled to minimize loss; and

5. Other relevant factors.

(b) The Director may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated if the reclamation

operation is an essential part of the production process. This determination will be based on the following criteria:

1. How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

2. The extent to which the material is handled before reclamation to minimize loss;

3. The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

4. The location of the reclamation operation in relation to the production process;

5. Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

6. Whether the person who generates the material also reclaims it; and

7. Other relevant factors.

(c) The Director may grant requests for a variance from classifying as a solid waste those hazardous secondary materials that have been partially reclaimed, but must be reclaimed further before recovery is completed, if the partial reclamation has produced a commodity-like material. A determination that a partially reclaimed material for which the variance is sought is commodity-like will be based on whether the hazardous secondary material is legitimately recycled as specified in 335-14-1-.03(23) of this part and on whether all of the following decision criteria are satisfied:

1. Whether the degree of partial reclamation the material has undergone is substantial as demonstrated by using a partial reclamation process other than the process that generated the hazardous waste;

2. Whether the partially-reclaimed material has sufficient economic value that it will be purchased for further reclamation;

3. Whether the partially-reclaimed material is a viable substitute for a product or intermediate produced from virgin or raw materials which is used in subsequent production steps;

4. Whether there is a market for the partially-reclaimed material as demonstrated by known customer(s) who are further reclaiming the material (e.g., records of sales and/or contracts and evidence of subsequent use, such as bills of lading); and

5. Whether the partially-reclaimed material is handled to minimize loss.

(12) Variance to be classified as a boiler. In accordance with the standards and criteria in 335-14-1-.02(1) (definition of "boiler"), and the procedures in 335-1-.03(13), the Director may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of a boiler contained in 335-14-1-.02(1), after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids or heated gases; and

(f) Other factors as appropriate.

(13) Procedures for variances from classification as a solid waste or to be classified as a boiler, or for non-waste determinations. The Department will use the following procedures in evaluating applications for variances from classification as a solid waste, applications to classify particular enclosed controlled flame combustion devices as boilers, or applications for non-waste determinations:

(a) The applicant must apply to the Department for the variance or non-waste determination. The application must address the relevant criteria contained in 335-14-1-.03(11), (12), or (14), as applicable.

(b) The Department will evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of the tentative decision will be provided by newspaper advertisement or radio broadcast in the locality where the recycler is located, if the recycler is within Alabama, or in the locality where the generator is located, if the recycler is located outside Alabama. The Department will accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at its discretion. The Director will issue a final decision after receipt of comments and after the hearing (if any).

(c) In the event of a change in circumstances that affect how a hazardous secondary material meets the relevant criteria contained in 335-14-1-.03(11), (12) or (14) upon which a variance or non-waste determination has been based, the applicant must send a description of the change in circumstances to the Director. The Director may issue a determination that the hazardous secondary material continues to meet the relevant criteria of the variance or non-waste determination or may require the facility to re-apply for the variance or non-waste determination.

(d) Variances and non-waste determinations shall be effective for a fixed term not to exceed ten years. No later than six months prior to the end of this term, facilities must re-apply for a variance or non-waste determination. If a facility re-applies for a variance or non-waste determination within six months, the facility may continue to operate under an expired variance or non-waste determination until receiving a decision on their re-application from the Director.

(e) Facilities receiving a variance or non-waste determination must provide notification as required by 335-14-1-.03(22) of this chapter.

(14) Standards and criteria for non-waste determinations.

(a) An applicant may apply to the Department for a formal determination that a hazardous secondary material is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in 335-14-1-.03(14)(b) or (c) of this section, as applicable. If an application is denied, the hazardous secondary material might still be eligible for a solid waste variance or exclusion (for example, one of the solid waste variances under 335-14-1-.03(11).

(b) The Department may grant a non-waste determination for hazardous secondary material which is reclaimed in a continuous industrial process if the applicant demonstrates that the hazardous secondary material is a part of the production process and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in 335-14-1-.03(23) and on the following criteria:

1. The extent that the management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment;

2. Whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);

3. Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

4. Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under 335-14-2-.01(2) or 335-14-2-.01(4).

(c) The Department may grant a non-waste determination for hazardous secondary material which is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The

determination will be based on whether the hazardous secondary material is legitimately recycled as specified in 335-14-1-.03(23) and on the following criteria:

1. Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste (for example, based on the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements);

2. Whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates;

3. Whether the capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);

4. Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

5. Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under 335-14-2-.01(2) or 335-14-2-.01(4) of this chapter.

(15) through (19) [Reserved]

(20) Additional regulation of certain hazardous waste recycling activities on a case-by-case basis.

(a) The Director may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in 335-14-2-.01(6)(a)2.(iii) should be regulated under rules 335-14-2-.01(6)(b) and (c). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Director will consider the following factors:

1. The types of materials accumulated or stored and the amounts accumulated or stored;

2. The method of accumulation or storage;

3. The length of time the materials have been accumulated or stored before being reclaimed;

4. Whether any contaminants are being released into the environment, or are likely to be so released; and

5. Other relevant factors.

(21) Procedures for case-by-case regulation of hazardous waste recycling activities. The Director will use the following procedures when determining whether to regulate hazardous waste recycling activities described in 335-14-2-.01(6)(a)2.(iii) under the provisions of rules 335-14-2-.01(6)(b) and (c), rather than under the provisions of 335-14-7-.06.

(a) If a generator is accumulating the waste, the Department will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of rules 335-14-3-.01, 335-14-3-.03, 335-14-3-.04 and 335-14-3-.09. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the Department will hold a public hearing. The Department will provide notice of the hearing to the public and will allow public participation at the hearing. The Director will issue a final order after the hearing stating whether or not compliance with Chapter 335-14-3 is required.

The order becomes effective 30 days after service of the decision unless the Department specifies a later date or unless review by the Commission is requested. The order may be appealed to the Commission by any person who participated in the public hearing. The Commission may choose to grant or to deny the appeal. Final Department action occurs when a final order is issued and Department review procedures are exhausted.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of Chapter 335-14-8. The owner or operator of the facility must apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Director's decision, he may do so in his permit application, in a public hearing on the draft permit or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the Director's determination.

(22) Notification requirement for hazardous secondary materials.

(a) Facilities managing hazardous secondary materials under335-14-1-.01(10), 335-14-2-.01(4)(a)23., 24., 25., or 27. must send a notification prior to operating under the regulatory provision and, thereafter, no later than the 15th of the month specified in the schedule located at 335-14-1-.02(1)(a) using ADEM Form 8700-12 that includes the following information:

1. The name, address, and EPA ID number (if applicable) of the facility;

2. The name and telephone number of a contact person;

3. The NAICS code of the facility;

4. The regulation under which the hazardous secondary materials will be managed;

5. For reclaimers and intermediate facilities managing hazardous secondary materials in accordance with 335-14-2-.01(4)(a)24. or 25., whether the reclaimer or intermediate facility has financial assurance (not applicable for persons managing hazardous secondary materials generated and reclaimed under the control of the generator);

6. When the facility began or expects to begin managing the hazardous secondary materials in accordance with the regulation;

7. A list of hazardous secondary materials that will be managed according to the regulation (reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes);

8. For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit;

9. The quantity of each hazardous secondary material to be managed annually; and

10. The certification (included in ADEM Form 8700-12) signed and dated by an authorized representative of the facility.

(b) If a facility managing hazardous secondary materials has submitted a notification, but then subsequently stops managing hazardous secondary materials in accordance with the regulation(s) listed above, the facility must notify the Department within thirty (30) days using ADEM Form 8700-12. For purposes of this section, a facility has stopped managing hazardous secondary materials if the facility no longer generates, manages and/or reclaims hazardous secondary materials under the regulation(s) above and does not expect to manage any amount of hazardous secondary materials for at least 1 year.

(23) Legitimate recycling of hazardous secondary materials.

(a) Recycling of hazardous secondary materials for the purpose of the exclusions or exemptions from the hazardous waste regulations must be legitimate. Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. In determining if their recycling is legitimate, persons must address all the requirements of 335-14-1-.03(23)(a) and consider the requirements of 335-14-1-.03(23)(b).

1. Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it:

(i) Contributes valuable ingredients to a product or intermediate; or

(ii) Replaces a catalyst or carrier in the recycling process; or

(iii) Is the source of a valuable constituent recovered in the recycling process; or

(iv) Is recovered or regenerated by the recycling process; or

(v) Is used as an effective substitute for a commercial product.

2. The recycling process must produce a valuable product or intermediate. The product or intermediate is valuable if it is:

(i) Sold to a third party; or

(ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

3. The generator and the recycler must manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material must be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material must be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded.

(b). The following factor must be considered in making a determination as to the overall legitimacy of a specific recycling activity.

1. The product of the recycling process does not:

(i) Contain significant concentrations of any hazardous constituents found in 335-14-2 Appendix VIII that are not found in analogous products;

(ii) Contain concentrations of hazardous constituents found in 335-14-2 Appendix VIII at levels that are significantly elevated from those found in analogous products, or

(iii) Exhibit a hazardous characteristic (as defined in 335-14-2-.03) that analogous products do not exhibit.

2. In making a determination that a hazardous secondary material is legitimately recycled, persons must evaluate all factors and consider legitimacy as a whole. If, after careful evaluation of these considerations, the factor in this paragraph is not met, then this fact may be an indication that the material is not legitimately recycled. However, the factor in this paragraph does not have to be met for the recycling to be considered legitimate. In evaluating the extent to which this factor is met and in determining whether a process that does not meet this factor is still legitimate, persons can consider exposure from toxics in the product, the bioavailability of the toxics in the product and other relevant considerations.

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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM
ADMINISTRATIVE CODE

CHAPTER 335-14-2
IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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335-14-2-.01 General.

(1) Purpose and scope.

(a) 335-14-2 identifies those solid wastes which are subject to regulation as hazardous wastes under 335-14-3 through 335-14-6, 335-14-8, and 335-14-9 and which are subject to the notification requirements of Section 3010 of RCRA. In 335-14-2:

1. 335-14-2-.01 defines the terms "solid waste" and "hazardous waste", identifies those wastes which are excluded from regulation under 335-14-3 through 335-14-9, and establishes special management requirements for hazardous waste produced by very small quantity generators and hazardous waste which is recycled.

2. 335-14-2-.02 sets forth the criteria used by the Department to identify characteristics of hazardous waste and to list particular hazardous wastes.

3. 335-14-2-.03 identifies characteristics of hazardous waste.

4. 335-14-2-.04 lists particular hazardous wastes.

(b)1. The definition of solid waste contained in 335-14-2 applies only to wastes that also are hazardous for purposes of the AHWMMA. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

2. 335-14-2 identifies only some of the materials which are solid wastes and hazardous wastes under AHWMMA. A material which is not defined as a solid waste in 335-14-2, or is not a hazardous waste identified or listed in 335-14-2, is still a solid waste and a hazardous waste for purposes of the applicable sections of the AHWMMA if the material may be a solid waste within the meaning of Code of Alabama 1975, §22-30-3(11), and a hazardous waste within the meaning of Code of Alabama 1975, §22-30-3(5).

(c) **[Reserved].**

(2) Definition of solid waste.

(a) 1. A solid waste is any discarded material that is not excluded by 335-14-2-.01(4)(a) or that is not excluded by variance granted under 335-14-1-.03(10) or (11).

2. A "discarded material" is any material which is:

(i) "Abandoned", as explained in 335-14-2-.01(2)(b); or

(ii) "Recycled", as explained in 335-14-2-.01(2)(c); or

(iii) Considered "inherently waste-like", as explained in 335-14-2-.01(2)(d); or

(iv) A "military munition" identified as a solid waste in 335-14-7-.13(3).

(b) Materials are solid wastes if they are "abandoned" by being:

1. Disposed of; or

2. Burned or incinerated; or

3. Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated; or

4. Sham recycled, as explained in 335-14-2-.01(2)(g).

(c) Materials are solid wastes if they are "recycled", or accumulated, stored, or treated before recycling, as specified in 335-14-2-.01(2)(c)1. through 4.:

1. "Used in a manner constituting disposal".

(i) Materials noted with a "*" in column 1 of Table 1 are solid wastes when they are:

(I) Applied to or placed on the land in a manner that constitutes disposal; or

(II) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in 335-14-2-.04(4) are not solid wastes if they are applied to the land and that is their ordinary manner of use;

2. "Burning for energy recovery".

(i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(I) Burned to recover energy;

(II) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste);

(III) Contained in fuels (in which case the fuel itself remains a solid waste);

(ii) However, commercial chemical products listed in 335-14-2-.04(4) are not solid wastes if they are themselves fuels;

3. "Reclaimed". Materials noted with a "–" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of 335-14-2-.01(4)(a)17, 335-14-2-.01(4)(a)23., 335-14-2-.01(4)(a)24., and 335-14-2-.01(4)(a)27.

4. "Accumulated speculatively". Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

Table 1

	Use constituting disposal 335-14-2-.01(2)(c)1.	Energy/ recovery fuel 335-14-2-.01(2)(c)2.	Reclamation 335-14-2-.01(2)(c)3., except as provided in 335-14-2-.01(4)(a)17., 335-14-2-.01(4)(a)23., 335-14-2-.01(4)(a)24., or 335-14-2-.01(4)(a)27.	Speculative accumulation 335-14-2-.01(2)(c)4.
	1	2	3	4
Spent materials	(*)	(*)	(*)	(*)
Sludges (listed in 335-14-2-.04(2) or (3))	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	- - - -	(*)
By-products (listed in 335-14-2-.04(2) or (3))	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	- - - -	(*)

	Use constituting disposal 335-14-2-.01 (2)(c)1.	Energy/ recovery fuel 335-14-2-.01(2)(c)2.	Reclamation 335-14-2-.01(2)(c)3., except as provided in 335-14-2-.01(4)(a)17., 335-14-2-.01(4)(a)23., 335-14-2-.01(4)(a)24., or 335-14-2-.01(4)(a)27.	Speculative accumulation 335-14-2-.01(2)(c)4.
	1	2	3	4
Commercial chemical products listed in 335-14-2-.04(4)	(*)	(*)	- - - -	- - - -
Scrap metal that is not excluded under 335-14-2-.01(4)(a)13.	(*)	(*)	(*)	(*)

[**Note:** The terms "spent materials", "sludges", "by-products", "scrap metal", and "processed scrap metal" are defined in 335-14-1-.02.]

(d) "Inherently waste-like materials". The following materials are solid wastes when they are recycled in any manner:

1. Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

2. Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in 335-14-2-.03 and 335-14-2-.04 except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in 335-14-2-Appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

3. The Department will use the following criteria to add wastes to that list:

(i)(I) The materials are ordinarily disposed of, burned, or incinerated; or

(II) The materials contain toxic constituents listed in 335-14-2-Appendix VIII and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) "Materials which are not solid wastes when recycled".

1. Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products.

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feed stock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at 335-14-2-.01(4)(a)17. apply rather than this provision.

2. The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in 335-14-2-.01(2)(e)1.(i) to (e)1.(iii)):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in 335-14-2-.01(2)(d)1. and 2.

(f) "Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation". Respondents in actions to enforce rules and regulations implementing the AHWMMA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(g) "Sham recycling". A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling as defined in 335-14-1-.03(23).

(3) Definition of hazardous waste.

(a) A solid waste, as defined in 335-14-2-.01(2), is a hazardous waste if:

1. It is not excluded from regulation as a hazardous waste under 335-14-2-.01(4)(b); and

2. It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in 335-14-2-.03. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under 335-14-2-.01(4)(b)7. and any other solid waste exhibiting a characteristic of hazardous waste under 335-14-2-.03 is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Table I of 335-14-2-.03(5) that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(ii) It is listed in 335-14-2-.04 and has not been excluded from the lists in 335-14-2-.04 under 335-14-1-.03(2);

(iii) Reserved.

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in 335-14-2-.04 and has not been excluded from 335-14-2-.01(3)(a)2. under 40 CFR 260.20 and 335-14-1-.03(2), 335-14-2-.01(3)(g), or 335-14-2-.01(3)(h); however, the following mixtures of solid wastes and hazardous wastes listed in 335-14-2-.04 are not hazardous wastes (except by application of 335-14-2-.01(3)(a)2.(i) or (a)2.(ii)) if the generator can demonstrate that the mixture consists of wastewater, the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewater at generators which have eliminated the discharge of wastewater), and:

(I) One or more of the following spent solvents listed in 335-14-2-.04(2) — benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived-from the combustion of these spent solvents — provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed one part per million or the total measured concentration of these

solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act, as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the State Director ("Director" as defined in 335-14-1-.02). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(II) One or more of the following spent solvents listed in 335-14-2-.04(2)—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived-from the combustion of these spent solvents — provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the State Director, ("Director" as defined in 335-14-1-.02). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the

Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(III) One of the following wastes listed in 335-14-2-.04(3), provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation -- heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste Number K050), crude oil storage tank sediment from petroleum refining operations (EPA Hazardous Waste Number K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (EPA Hazardous Waste Number K170), spent hydrotreating catalyst (EPA Hazardous Waste Number K171), and spent hydrorefining catalyst (EPA Hazardous Waste Number K172); or

(IV) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in 335-14-2-.04(2) through (4), arising from de minimis losses of these materials. For purposes of 335-14-2-.04, "de minimis" losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges, discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in 335-14-2-.04(2) through (3), or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in 335-14-2-.04 must either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit application or submission to its pretreatment control authority the constituents for which each waste was listed (335-14-2-Appendix VII); and the constituents in the table “Treatment Standards for Hazardous Wastes” in 335-14-9-.04(1) for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the permit writer or control authority has been notified of possible de minimis releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water permit application or the submission to the pretreatment control authority must be placed in the facility's on-site files; or

(V) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in 335-14-2-.04, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system, or provided the wastes combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(VI) One or more of the following wastes listed in 335-14-2-.04(3) — wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157) — provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be

demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the State Director ("Director" as defined in 335-14-1-.02). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(VII) Wastewaters derived from the treatment of one of more of the following wastes listed in 335-14-2-.04(3) — organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156) — provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR parts 60, 61, or 63, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the State Director ("Director" as defined in 335-14-1-.02). A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if he/she finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 335-14-2-.04. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 335-14-2-Appendix VIII.)

(I) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(II) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under 335-14-2-.01(3)(a)1. becomes a hazardous waste when any of the following events occur:

1. In the case of a waste listed in 335-14-2-.04, when the waste first meets the listing description set forth in 335-14-2-.04;

2. In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in 335-14-2-.04 is first added to the solid waste;

3. In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in 335-14-2-.03.

(c) Unless or until it meets the criteria of 335-14-2-.01(3)(d):

1. A hazardous waste will remain a hazardous waste;

2.(i) Except as otherwise provided in 335-14-2-.01(2)(c)2.(ii), 335-14-2-.01(3)(g), or 335-14-2-.01(3)(h), any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.);

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(I) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC codes 331 and 332).

(II) Waste from burning any of the materials exempted from regulation by 335-14-2-.01(6)(a)3.(iii) through (iv).

(III)(1) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces [as defined in 335-14-1-.02(1)], that are disposed in Subtitle D unit(s) (which are in compliance with the applicable requirements of ADEM Administrative Code Division 335-13, Solid Waste Program Rules, and which are authorized to receive such wastes), provided that these residues meet the generic exclusion levels identified in the tables in 335-14-2-.01(3)(c) for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	**Maximum for any single composite sample--TCLP (mg/L)**
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater HTMR residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15

Constituent	Maximum for any single composite sample--TCLP (mg/L)
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(III)(2) A one-time notification and certification must be placed in the facility's files and sent to EPA Region 4 and to the Department for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to Subtitle D unit(s) regulated pursuant to Division 335-13 Rules. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes and/or if the Subtitle D unit receiving the waste changes. However, the generator or treater need only notify EPA Region 4 and the Department on an annual basis if such changes occur. Such notification and certification should be sent to EPA Region 4 and the Department by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the Subtitle D unit(s) regulated pursuant to Division 335-13 Rules receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(IV) Biological treatment sludge from the treatment of one of the following wastes listed in 335-14-2-.04(3) - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157).

(V) Catalyst inert support media separated from one of the following wastes listed in 335-14-2-.04(3)--Spent hydrotreating catalyst (EPA Hazardous Waste Number K171), and spent hydrorefining catalyst (EPA Hazardous Waste Number K172).

(d) Any solid waste described in 335-14-2-.01(3)(c) is not a hazardous waste if it meets the following criteria:

1. In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in 335-14-2-.03. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the

requirements of 335-14-9, even if they no longer exhibit a characteristic at the point of land disposal.)

2. In the case of a waste which is a listed waste under 335-14-2-.04, contains a waste listed under 335-14-2-.04 or is derived from a waste listed in 335-14-2-.04, it also has been excluded from 335-14-2-.01(3)(c) under 335-14-1-.03(2).

(e) [**Reserved]**

(f) Notwithstanding 335-14-2-.01(3)(a) through (d) and provided the debris as defined in 335-14-9 does not exhibit a characteristic identified in 335-14-2-.03, the following materials are not subject to regulation under 335-14-1 through 335-14-9:

1. Hazardous debris as defined in 335-14-9 that has been treated using one of the required extraction or destruction technologies specified in 335-14-9-.04(6) [see Table 1, 40 CFR 268.45]; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

2. Debris as defined in 335-14-9 that the Department, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(g)1. A hazardous waste that is listed in 335-14-2-.04 solely because it exhibits one or more characteristics of ignitability as defined under 35-14-2-.03(2), corrosivity as defined under 335-14-2-.03(3), or reactivity as defined under 335-14-2-.03(4) is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in 335-14-2-.03.

2. The exclusion described in 335-14-2-.01(3)(g)1. also pertains to:

(i) Any mixture of a solid waste and a hazardous waste listed in 335-14-2-.04 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under 335-14-2-.01(3)(a)2.(iv); and

(ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in 335-14-2-.04 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under 335-14-2-.01(3)(c)2.(i).

3. Wastes excluded under 335-14-2-.01(3) are subject to 335-14-9 (as applicable), even if they no longer exhibit a characteristic at the point of land disposal.

4. Any mixture of a solid waste excluded from regulation under 335-14-2-.01(4)(b)7. and a hazardous waste listed in 335-14-2-.04 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under 335-14-2-.01(3)(a)2.(iv) is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in 335-14-2-.03 for which the hazardous waste listed in 335-14-2-.04 was listed.

(h)1. Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of 335-14-7-.14 ("eligible radioactive mixed waste").

2. The exemption described in 335-14-2-.01(3)(h)1. also pertains to:

(i) Any mixture of a solid waste and an eligible radioactive mixed waste; and

(ii) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

3. Waste exempted under 335-14-2-.01(3) must meet the eligibility criteria and specified conditions in 335-14-7-.14(3) and 335-14-7-.14(4) (for storage and treatment) and in 335-14-7-.14(12) and 335-14-7-.14(13) (for transportation and disposal). Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

(4) Exclusions.

(a) "Materials which are not solid wastes". The following materials are not solid wastes for the purpose of 335-14-2:

1. (i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, except as prohibited by 335-14-7-.16(5) and Clean Water Act requirements at 40 CFR 403.5(b);

2. Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the federal Clean Water Act, as amended. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment;

3. Irrigation return flows;

4. Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.;

5. Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process;

6. Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in 335-14-1-.02;

7. Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in 335-14-1-.02;

8. Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

9. (i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in 335-14-2-.01(4)(a)9.(i) and (a)9.(ii), so long as they meet all of the following conditions:

(I) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;

(II) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or ground water or both;

(III) Any unit used to manage wastewaters and/or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;

(IV) Any drip pad used to manage the wastewaters and/or spent wood preserving solutions prior to reuse complies with the standards in 335-14-6-.23, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and

(V) Prior to operating pursuant to this exclusion, the facility owner or operator prepares a one-time notification stating that the facility intends to claim the exclusion, giving the date on which the facility intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The facility must maintain a copy of that document in its on-site

records until closure of the facility. The exclusion applies so long as the facility meets all of the conditions. If the facility goes out of compliance with any condition, it may apply to the Director for reinstatement. Director may reinstate the exclusion upon finding that the facility has returned to compliance with all conditions and that the violations are not likely to recur.

10. EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148 and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic specified in 335-14-2-.03(5), when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar or are mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

11. Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

12.(i) Oil-bearing hazardous secondary materials (i.e., sludges, by-products, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911—including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units (i.e., cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under 335-14-2-.01(4), provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery, and still be excluded under this provision. Except as provided in 335-14-2-.01(4)(a)12.(ii), oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under 335-14-2-.01(4). Residuals generated from processing or recycling materials excluded under 335-14-2-.01(4)(a)12.(i), where such materials as generated would have otherwise met a listing under 335-14-2-.04, are designated as F037 listed wastes when disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the same manner and with the same conditions as described in 335-14-2-.01(4)(a)12.(i). Recovered oil is oil that has been reclaimed from secondary materials (including wastewater) generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172.) Recovered oil does not include oil-bearing hazardous wastes listed in 335-14-2-.04; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in 335-14-1-.02.

13. Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

14. Shredded circuit boards being recycled provided that they are:

(i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

15. Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

16. **[Reserved].**

17. Spent materials (as defined in 335-14-2-.01(1)) (other than hazardous wastes listed in 335-14-2-.04) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, provided that:

(i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) The spent material is not accumulated speculatively;

(iii) Except as provided in 335-14-2-.01(4)(a)17.(iv), the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support (except smelter buildings may have partially earthen floors provided the spent material is stored on the non-earthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be free standing, not be a surface impoundment (as defined in 335-14-1-.02), and be manufactured of a material suitable for containment of its contents; a container must be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner/operator must operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings must be designed, constructed and operated to prevent significant releases to the environment of these materials.

(iv) The Department may make a site-specific determination, after public review and comment, that only solid mineral processing spent materials may be placed on pads rather than in tanks, containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The Department must affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads must provide the same degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.

(I) The Department must also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, and air exposure pathways are: the volume and physical and chemical properties of the spent material, including its potential for migration off the pad; the potential for human

or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(II) Pads must meet the following minimum standards: be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run on/runoff controls, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(III) Before making a determination under 335-14-2-.01(4), the Department must provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides a notice to the Department, identifying the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in non land-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of 335-14-2-.01(4)(b)7., mineral processing spent materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

18. Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided:

(i) The oil is hazardous only because it exhibits the characteristic of ignitability (as defined in 335-14-2-.03(2) and/or toxicity for benzene (335-14-2-.03(5), hazardous waste number D018); and

(ii) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An “associated organic chemical manufacturing facility” is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. “Petrochemical recovered oil” is oil that has been reclaimed from secondary materials (i.e., sludges, byproducts, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

19. Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in 335-14-1-.02.

20. Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions specified are satisfied:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers must not be accumulated speculatively, as defined in 335-14-1-.02.

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers must:

(I) Submit a one-time notice to the Department, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in 335-14-2-.01(4)(a)20.

(II) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose must be an engineered structure made of non-earthen materials that provide structural support, and must have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose must be structurally sound and, if outdoors, must have roofs or covers that prevent contact with wind and rain. Containers used for this purpose must be kept closed except when it is necessary to add or remove material, and must be in sound condition. Containers that are stored outdoors must be managed within storage areas that:

I. Have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and

II. Provide for effective drainage and removal of leaks, spills and accumulated precipitation; and

III. Prevent run-on into the containment system.

(III) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of 335-14-2-.01(4)(a)20.

(IV) Maintain at the generator's or intermediate handler's facility for no less than three years records of all shipments of excluded hazardous secondary materials. For each shipment these records must at a minimum contain the following information:

I. Name of the transporter and date of the shipment;

II. Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

III. Type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials must:

(I) Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in 335-14-2-.01(4)(a)20(ii)(II).

(II) Submit a one-time notification to the Department that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in 335-14-2-.01(4)(a)20.

(III) Maintain for a minimum of three years records of all shipments of excluded hazardous secondary materials received by the manufacturer, which must at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

(IV) Submit to the Department an annual report that identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process(s) from which they were generated.

(iv) Nothing in this section preempts, overrides or otherwise negates the provision in 335-14-3-.01(2), which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in 335-14-2-.01(4)(a)20.(ii)(I), and that afterward will be used only to store hazardous secondary materials excluded under this paragraph, are not subject to the closure requirements of 335-14-5 or 335-14-6.

21. Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under 335-14-2-.01(4)(a)20., provided that:

(i) The fertilizers meet the following contaminant limits:

(I) For metal contaminants:

Table 1. – Limits on Metal Contaminants

Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(II) For dioxin contaminants the fertilizer must contain no more than eight (8) parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing must also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product(s) introduced into commerce.

(iii) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with the requirements of 335-14-2-.01(4)(a)21(ii). Such records must at a minimum include:

(I) The dates and times product samples were taken, and the dates the samples were analyzed;

(II) The names and qualifications of the person(s) taking the samples;

(III) A description of the methods and equipment used to take the samples;

(IV) The name and address of the laboratory facility at which analyses of the samples were performed;

(V) A description of the analytical methods used, including any cleanup and sample preparation methods; and

(VI) All laboratory analytical results used to determine compliance with the contaminant limits specified in 335-14-2-.01(4)(a)21.

22. Used cathode ray tubes (CRTs).

(i) Used, intact CRTs as described in 335-14-1-.02 are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in 335-14-1-.02 by CRT collectors or glass processors.

(ii) Used, intact CRTs as described in 335-14-1-.02 are not solid wastes when exported for recycling provided that they meet the requirements of 335-14-2-.05(2).

(iii) Used, broken CRTs as described in 335-14-1-.02 are not solid wastes provided that they meet the requirements of 335-14-2-.05(1).

(iv) Glass removed from CRTs is not a solid waste provided that it meets the requirements of 335-14-2-.05(1)(c).

23. Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided that the material complies with paragraphs 335-14-2-.01(4)(a)23.(i) and (ii) of this section:

(i)(I) The hazardous secondary material is generated and reclaimed at the generating facility (for purposes of this definition, generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator); or

(II) The hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in 335-14-1-.02, and if the generator provides one of the following certifications: "on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material," or "on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in 335-14-1-.02 shall not be deemed to "control" such facilities. The generating and receiving facilities must both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations); or

(III) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed

by the tolling contractor, if the tolling contractor certifies the following: "On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name] has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process". The tolling contractor must maintain at its facility for no less than three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer must maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records must contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations). For purposes of this paragraph, tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

(ii)(I) The hazardous secondary material is contained as defined in 335-14-1-.02. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.

(II) The hazardous secondary material is not speculatively accumulated, as defined in 335-14-1-.02.

(III) Notice is provided as required by 335-14-1-.03(22).

(IV) The material is not otherwise subject to material-specific management conditions under paragraph (a) of this section when reclaimed, and it is not a spent lead-acid battery (see 335-14-7-.07(1) and 335-14-11-.01(2)).

(V) Persons performing the recycling of hazardous secondary materials under this exclusion must maintain documentation of their legitimacy determination on-site. Documentation must be a written description of how the recycling meets all four factors in 335-14-1-.03(23). Documentation must be maintained for three years after the recycling operation has ceased.

(VI) The emergency preparedness and response requirements found in 335-14-2-.13 are met.

24. Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that:

(i) The material is not speculatively accumulated, as defined in 335-14-1-.02;

(ii) The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in 335-14-1-.02(1), and is packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport;

(iii) The material is not otherwise subject to material-specific management conditions under this paragraph (a) when reclaimed, and it is not a spent lead-acid battery (see 335-14-7-.07(1) and 335-14-11-.01(2));

(iv) The reclamation of the material is legitimate, as specified under 335-14-1-.03(23);

(v) The hazardous secondary material generator satisfies all of the following conditions:

(I) The material must be contained as defined in 335-14-1-.02(1). A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is discarded and a solid waste.

(II) Prior to arranging for transport of hazardous secondary materials to a reclamation facility (or facilities) where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards, the hazardous secondary material generator must make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards, the hazardous secondary material generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator must perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts must be repeated at a minimum of every three years for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material

generator, provided by the reclaimer or intermediate facility, and/or provided by a third party. The hazardous secondary material generator must affirmatively answer all of the following questions for each reclamation facility and any intermediate facility:

I. Does the available information indicate that the reclamation process is legitimate pursuant to 335-14-1-.03(23). In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources (e.g., the reclamation facility, audit reports, etc.) about the reclamation process.

II. Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to 335-14-1-.03(22) of this chapter and have they notified the appropriate authorities that the financial assurance condition is satisfied 335-14-2-.08? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per 335-14-1-.03(22), including the requirement in 335-14-1-.03(22)(a)(5) to notify the Department whether the reclaimer or intermediate facility has financial assurance.

III. Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of RCRA or state hazardous waste regulations and has not been classified as a significant non-complier with RCRA Subtitle C or equivalent State regulations? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of RCRA or state hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C or equivalent state regulations, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can obtain additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

IV. Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

V. If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required

(if any) to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the state, or information provided by the facility itself.

(III) The hazardous secondary material generator must maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards prior to transferring hazardous secondary material. Documentation and certification must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority. The certification statement must:

I. Include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed;

II. Incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary materials to [insert name(s) of reclamation facility and any intermediate facility], reasonable efforts were made in accordance with 335-14-2-.01(4)(a)24.(v)(II) to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

(IV) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years records of all off-site shipments of hazardous secondary materials. For each shipment, these records must, at a minimum, contain the following information:

I. Name of the transporter and date of the shipment;

II. Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent;

III. The type and quantity of hazardous secondary material in the shipment.

(V) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of hazardous secondary materials. Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials

were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt);

(VI) The hazardous secondary material generator must comply with the emergency preparedness and response conditions in 335-14-2-.13.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in 335-14-1-.02(1) satisfy all of the following conditions:

(I) The reclaimer and intermediate facility must maintain at its facility for no less than three (3) years records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records must at a minimum contain the following information:

I. Name of the transporter and date of the shipment;

II. Name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary materials were received from;

III. The type and quantity of hazardous secondary material in the shipment; and

IV. For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the (subsequent) reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

(II) The intermediate facility must send the hazardous secondary material to the reclaimer(s) designated by the hazardous secondary materials generator.

(III) The reclaimer and intermediate facility must send to the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary materials. Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt).

(IV) The reclaimer and intermediate facility must manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and must be contained. An “analogous raw material” is a raw material for which a hazardous secondary material is a substitute and serves the same

function and has similar physical and chemical properties as the hazardous secondary material.

(V) Any residuals that are generated from reclamation processes will be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to 335-14-2-.03, or if they themselves are specifically listed in 335-14-2-.04, such residuals are hazardous wastes and must be managed in accordance with the applicable requirements of 335-14-1 through 9.

(VI) The reclaimer and intermediate facility have financial assurance as required under 335-14-2-.08,

(vii) All persons claiming the exclusion under 335-14-2-.01(4)(a)24. of this section provide notification as required under 335-14-1-.03(22).

25. The Environmental Protection Agency Regulations as they exist as set forth in 40 CFR § 261.4(a)(25) (as published on May 30, 2018) are incorporated herein by reference.

26. Solvent-contaminated reusable wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that:

(i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container should be closed in accordance with 335-14-1-.02, except when necessary to add or remove solvent-contaminated wipes;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning;

(iii) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes must contain no free liquids as defined in 335-14-1-.02;

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in 335-14-1 through 335-14-9;

(v) Generators must maintain at their site the following documentation:

(I) Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(II) Documentation that the 180-day accumulation time limit in 335-14-2-.01(4)(a)26.(ii) is being met;

(III) Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning;

(IV) The generator must maintain in their onsite records, documentation that verifies that "no free liquids" were present in the container, prior to shipment. These records must be kept for at least three years from the date of shipment. At a minimum, these records must include the date and time of the verification, the name of the person verifying and a notation of the volume of free liquids removed from the container, if present.

(vi) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.

27. Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that:

(i) The hazardous secondary material consists of one or more of the following spent solvents: toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, NN-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, and/or methanol;

(ii) The hazardous secondary material originated from using one or more of the solvents listed in 335-14-2-.01(4)(a)27.(i) of this section in a commercial grade for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510).

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in 335-14-2-.01(4)(a)27.(i) of this section to a remanufacturer in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510).

(iv) After remanufacturing one or more of the solvents listed in 335-14-2-.01(4)(a)27.(i) of this section, the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and the paints and coatings manufacturing sectors (NAICS 325510) or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act (40 CFR Parts 704, 710–711), including

Industrial Function Codes U015 (solvents consumed in a reaction to produce other chemicals) and U030 (solvents become part of the mixture);

(v) After remanufacturing one or more of the solvents listed in 335-14-2-.01(4)(a)27.(i) of this section, the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. (These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.); and

(vi) Both the hazardous secondary material generator and the remanufacturer must:

(I) Notify the Director and update the notification annually in accordance with 335-14-1-.03(22);

(II) Develop and maintain an up-to-date remanufacturing plan which identifies:

I. The name, address and EPA ID number of the generator(s) and the remanufacturer(s),

II. The types and estimated annual volumes of spent solvents to be remanufactured,

III. The processes and industry sectors that generate the spent solvents,

IV. The specific uses and industry sectors for the remanufactured solvents, and

V. A certification from the remanufacturer stating "on behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510), and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 335-14-6-.27 (vents), 335-14-6-.28 (equipment) and 335-14-6-.29 (tank storage)";

(III) Maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;

(IV) Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in 335-14-2-.09 and 335-14-2-.10, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;

(V) During remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 335-14-6-.27 (vents), 335-14-6-.28 (equipment) and 335-14-6-.29 (tank storage); and

(VI) Ensure that no hazardous secondary materials are speculatively accumulated.

(b) "Solid wastes which are not hazardous wastes". The following solid wastes are not hazardous wastes:

1. Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused. "Household waste" means any material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous waste for the purposes of regulation under 335-14-2-.01, if:

(i) Such facility receives and burns only:

(I) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and

(II) Solid waste from commercial or industrial sources that does not contain hazardous waste.

(ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

2. Solid wastes generated by the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops;

(ii) The raising of animals, including animal manures.

3. Mining overburden returned to the mine site.

4. Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by 335-14-7-.08(13) for facilities that burn or process hazardous waste.

5. Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy;

6.(i) Wastes which fail the test for the characteristic of toxicity because chromium is present or are listed in 335-14-2-.04 due to the presence of chromium, which do not fail the test for the characteristic of toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(I) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(II) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(III) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in 335-14-2-.01(4)(b)6.(i)(I) through (III) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are:

(I) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(II) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(III) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(IV) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair

save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(V) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(VI) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry and other leather product manufacturing industries.

(VII) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

(iii) For waste meeting the criteria described in 335-14-2-.01(4)(b)6.(i) but not specifically listed in 335-14-2-.01(4)(b)6.(ii), the generator may petition the Department in accordance with 335-14-1-.03(2)(f) to have the waste excluded from regulation as a hazardous waste.

7. Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock and overburden from the mining of uranium ore), except as provided by 335-14-7-.08(13) for facilities that burn or process hazardous waste.

(i) For the purposes of 335-14-2-.01(4)(b)7., beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in-situ leaching.

(ii) For the purposes of 335-14-2-.01(4)(b)7., solid waste from the processing of ores and minerals includes only the following wastes as generated:

(I) Slag from primary copper processing;

(II) Slag from primary lead processing;

(III) Red and brown muds from bauxite refining;

(IV) Phosphogypsum from phosphoric acid production;

(V) Slag from elemental phosphorus production;

(VI) Gasifier ash from coal gasification;

(VII) Process wastewater from coal gasification;

(VIII) Calcium sulfate wastewater treatment plant sludge from primary copper processing;

(IX) Slag tailings from primary copper processing;

(X) Fluorogypsum from hydrofluoric acid production;

(XI) Process wastewater from hydrofluoric acid production;

(XII) Air pollution control dust/sludge from iron blast furnaces;

(XIII) Iron blast furnace slag;

(XIV) Treated residue from roasting/leaching of chrome ore;

(XV) Process wastewater from primary magnesium processing by the anhydrous process;

(XVI) Process wastewater from phosphoric acid production;

(XVII) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

(XVIII) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

(XIX) Chloride process waste solids from titanium tetrachloride production;

(XX) Slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under 335-14-2-.01(4)(b) if the owner or operator:

(I) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,

(II) Legitimately reclaims the secondary mineral processing materials.

8. Cement kiln dust waste, except as provided by 335-14-7-.08(13) for facilities that burn or process hazardous waste.

9. Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Characteristic of Toxicity for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason or reasons, if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

10. Petroleum-contaminated media and debris that fail the test for the Characteristic of Toxicity of 335-14-2-.03(5) (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under Part 280 of 40 CFR.

11. Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) in 335-14-2-.03(5) that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if:

(i) Operations are performed pursuant to a written State of Alabama agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed; and

(ii) A copy of the written agreement has been submitted to: Waste Identification Branch (5304), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

12. Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

13. Non-terne plated used oil filters that are not mixed with wastes listed in 335-14-2-.04 if these oil filters have been gravity hot-drained using one of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) Hot-draining and crushing;

(iii) Dismantling and hot-draining; or

(iv) Any other equivalent hot-draining method which will remove the free-flowing used oil.

14. Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

15. Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181, if these wastes had been generated after the effective date of the listing;

(ii) The solid wastes described in 335-14-2-.01(4)(b)15.(i) of this section were disposed prior to the effective date of the listing;

(iii) The leachate or gas condensate does not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act.

(v) After February 13, 2001, leachate or gas condensate derived from K169-K172 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. After November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of 335-14-2-.01(4)(b)15.(v) after the emergency ends.

16. **[Reserved].**

17. **[Reserved].**

18. Solvent-contaminated disposable wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided that:

(i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers must be able to contain free liquids, should free liquids occur. During accumulation, a container should be closed in accordance with 335-14-1-.02, except when necessary to add or remove solvent contaminated wipes;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal;

(iii) At the point of being transported for disposal, the solvent-contaminated wipes must contain no free liquids as defined in 335-14-1-.02;

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes must be managed according to the applicable regulations found in 335-14-1 through 335-14-9;

(v) Generators must maintain at their site the following documentation:

(I) Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;

(II) Documentation that the 180 day accumulation time limit in accordance with 335-14-2-.01(4)(b)18.(ii) is being met;

(III) Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal;

(IV) The generator must maintain in their onsite records, Documentation that verifies that "no free liquids" were present in the container, prior to shipment. These records must be kept for at least three years from the date of shipment. At a minimum, these records must include the date and time of the verification, the name of the person verifying and a notation of the volume of free liquids removed from the container, if present.

(vi) The solvent-contaminated wipes are sent for disposal:

(I) To a municipal solid waste landfill regulated under Division 335-13 rules including 335-13-4-.11 and meets the municipal solid waste landfill standards of 40 CFR 258, or to a hazardous waste landfill regulated under 335-14-5, 335-14-6, and 335-14-8; or

(II) To a municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under 335-14-5, 335-14-6, and 335-14-7.

(c) "Hazardous wastes which are exempted from certain regulations". A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated unit, is not subject to regulation under 335-14-3 through 335-14-6, 335-14-8, 335-14-9 or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d) <u>Samples</u>.

1. Except as provided in 335-14-2-.01(4)(d)2., a sample of solid waste or a sample of water, tested to determine its characteristics or composition, is not subject to any requirements of 335-14-2 or 335-14-3 through 335-14-9 or to the notification requirements of Section 3010 of RCRA, when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

2. In order to qualify for the exemption in 335-14-2-.01(4)(d)1.(i) and (ii), a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(i) Comply with United States Department of Transportation (DOT), United States Postal Service (USPS), or any other applicable shipping requirements; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(I) Assure that the following information accompanies the sample:

I. The sample collector's name, mailing address, and telephone number;

II. The laboratory's name, mailing address, and telephone number;

III. The quantity of the sample;

IV. The date of shipment; and

V. A description of the sample; and

(II) Package the sample so that it does not leak, spill, or vaporize from its packaging.

3. This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in 335-14-2-.01(4)(d)1.

(e) "Treatability Study Samples".

1. Except as provided in 335-14-2-.01(4)(e)2., persons who generate or collect samples for the purpose of conducting treatability studies as defined in 335-14-1-.02(1), are not subject to any requirement of 335-14-2 through 335-14-4 or to the notification requirements of Section 3010 of RCRA, nor are such samples included in the quantity determinations of 335-14-3-.01(3) when:

(i) The sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

2. The exemption in 335-14-2-.01(4)(e)1. is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(i) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, or 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(iii) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of 335-14-2-.01(4)(e)2.(iii)(I) or (II) are met.

(I) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(II) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

I. The name, mailing address, and telephone number of the originator of the sample;

II. The name, address, and telephone number of the facility that will perform the treatability study;

III. The quantity of the sample;

IV. The date of shipment; and

V. A description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility which is exempt under 335-14-2-.01(4)(f) or has an appropriate RCRA permit or interim status.

(v) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:

(I) Copies of the shipping documents;

(II) A copy of the contract with the facility conducting the treatability study;

(III) Documentation showing:

I. The amount of waste shipped under this exemption;

II. The name, address, and EPA identification number of the laboratory or testing facility that received the waste;

III. The date the shipment was made; and

IV. Whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under 335-14-2-.01(4)(e)2.(v)(III) in its biennial report.

3. The Department may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Department may grant requests on a case-by-case basis for quantity limits in excess of those specified in 335-14-2-.01(4)(e)2.(i) and (ii) and 335-14-2-.01(4)(f)4., for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:

(i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process (e.g., batch versus continuous), size of unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material

required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

(ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(iii) The additional quantities and timeframes allowed in 335-14-2-.01(4)(e)3.(i) and (ii) are subject to all the provisions in 335-14-2-.01(4)(e)1. and 2.(iii) through (vi). The generator or sample collector must apply to the Department and provide in writing the following information:

(I) The reason why the generator or sample collector requires additional time or quantity of sample for the treatability study evaluation and the additional quantity needed;

(II) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

(III) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(IV) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(V) Such other information that the Department considers necessary.

(f) <u>Samples Undergoing Treatability Studies at Laboratories and Testing Facilities</u>. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to AHWMMA or RCRA requirements) are not subject to any requirement of 335-14-2, and 335-14-3 through 335-14-9, or to the notification requirements of Section 3010 of RCRA provided that the conditions of 335-14-2-.01(4)(f)1. through 11. are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to 335-14-2-.01(4)(f)1. through (f)11. Where a group of MTUs are located at the same site, the limitations specified in 335-14-2-.01(4)(f)1. through 11. apply to the entire group of MTUs collectively as if the group were one MTU.

1. No less than 45 days before conducting treatability studies, the facility notifies the State Director in writing that it intends to conduct treatability studies under 335-14-2-.01(4)(f).

2. The laboratory or testing facility conducting the treatability study has an EPA identification number.

3. No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subjected to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

4. The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

5. No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

6. The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

7. The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) The date the shipment was received;

(iii) The quantity of waste accepted;

(iv) The quantity of "as received" waste in storage each day;

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) The date the treatability study was concluded;

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

8. The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

9. The facility prepares and submits a report to the Director by March 15 of each year that includes the following information for the previous calendar year:

(i) The name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) The types (by process) of treatability studies conducted;

(iii) The names and addresses of persons for whom studies have been conducted (including their EPA identification numbers);

(iv) The total quantity of waste in storage each day;

(v) The quantity and types of waste subjected to treatability studies;

(vi) When each treatability study was conducted;

(vii) The final disposition of residues and unused sample from each treatability study.

10. The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under 335-14-2-.01(3) and, if so, are subject to 335-14-2 through 335-14-9, unless the residues and unused samples are returned to the sample originator under the 335-14-2-.01(4)(e) exemption.

11. The facility notifies the State Director by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under §404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. For 335-14-2-.01(4)(g), the following definitions apply:

1. The term “dredged material” has the same meaning as defined in 40 CFR 232.2;

2. The term “permit” means:

(i) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);

(ii) A permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413); or

(iii) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in 335-14-2-.01(4)(g)2.(i) and (ii), as provided for in Corps regulation (for example, see 33 CFR 336.1, 336.2, and 337.6)

(h) [Reserved]

(i) [Reserved]

(j) Airbag waste.

1. Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under 335-14-3 through 335-14-9, and is not subject to the notification requirements of section 3010 of RCRA provided that:

(i) The airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days;

(ii) The airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled "Airbag Waste – Do Not Reuse;"

(iii) The airbag waste is sent directly to either:

(I) An airbag waste collection facility in the United States under the control of a vehicle manufacturer or their authorized representative, or under the control of an authorized party administering a remedy program in response to a recall under the National Highway Traffic Safety Administration, or

(II) A designated facility as defined in 335-14-1-.02(1);

(iv) The transport of the airbag waste complies with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 during transit;

(v) The airbag waste handler maintains at the handler facility for no less than three (3) years records of all off-site shipments of airbag waste and all confirmations of receipt from the receiving facility. For each shipment, these records must, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste (i.e., airbag modules or airbag inflators) in the shipment. Confirmations of receipt must include the name and address of the receiving facility; the type and quantity of the airbag waste (i.e., airbag modules and airbag inflators) received; and the date which it was received. Shipping records and confirmations of receipt must be made available for

inspection and may be satisfied by routine business records (e.g., electronic or paper financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt).

2. Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to all applicable hazardous waste regulations, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste regulations and must comply with the requirements of 335-14-3.

3. Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under 335-14-2-.01(2)(g).

(5) [Reserved]

(6) Requirements for recyclable materials.

(a)1. Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of 335-14-2-.01(6)(b) and (c), except for the materials listed in 335-14-2-.01(6)(a)2. and (a)3. Hazardous wastes that are recycled will be known as "recyclable materials".

2. The following recyclable materials are not subject to the requirements of 335-14-2-.01(6) but are regulated under 335-14-7-.03 through 335-14-7-.14 and all applicable provisions of 335-14-8 and 335-14-9.

(i) Recyclable materials used in a manner constituting disposal (335-14-7-.03);

(ii) Hazardous wastes burned [the definition of which is incorporated by reference in rule 335-14-7-.08(1)] for energy recovery in boilers and industrial furnaces that are not regulated under 335-14-5-.15 and 335-14-6-.15 (335-14-7-.08);

(iii) Recyclable materials from which precious metals are reclaimed (335-14-7-.06).

(iv) Spent lead-acid batteries that are being reclaimed (335-14-7-.07).

3. The following recyclable materials are not subject to regulation under 335-14-3 through 335-14-9, and are not subject to the notification requirements of Section 3010 of RCRA:

(i) Industrial ethyl alcohol that is reclaimed except that exports and imports of such recyclable materials must comply with the requirements of 335-14-3-.09:

(I) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in 335-14-3-.05(4), 335-14-3-.05(7)(a)1. through 4., 6.,

and 335-14-3-.05(7)(b), and 335-14-3-.05(8), export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in 335-14-1-.02, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(II) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, must ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and must ensure that it is delivered to the facility designated by the person initiating the shipment.

(ii) Scrap metal that is not excluded under 335-14-2-.01(4)(a)13.;

(iii) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under 335-14-2-.01(4)(a)12.);

(iv)(I) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under 335-14-17-.02(2) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(II) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under 335-14-17-.02(2); and

(III) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specifications under 335-14-17-.02(2).

4. Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of 335-14-1 through 335-14-7 and 335-14-9, but is regulated under 335-14-17. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

5. Hazardous waste that is exported to or imported for the purpose of recovery is subject to the requirements of 335-14-3-.09.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of 335-14-3 and 335-14-4 and the notification requirements under Section 3010 of RCRA, except as provided in 335-14-2-.01(6)(a).

(c)1. Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of 335-14-5-.01 through 335-14-5-.12, 335-14-5-.27, 335-14-5-.28, 335-14-5-.29, 335-14-6-.01 through 335-14-6-.12, 335-14-6-.27, 335-14-6-.28, 335-14-6-.29, and under 335-14-7, 335-14-8 (except as provided in 335-14-8-.01(1)(c)3.(v)), 335-14-9, and the notification requirements under Section 3010 of RCRA, except as provided in 335-14-2-.01(6)(a). [The recycling process itself is exempt from regulation except as provided in 335-14-2-.01(6)(d).]

2. Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in 335-14-2-.01(6)(a):

(i) Notification requirements for small and large quantity generators under 335-14-3-.01(8);

(ii) 335-14-6-.05(2) and (3) (dealing with the use of the manifest and manifest discrepancies);

(iii) 335-14-2-.01(6)(d);

(iv) 335-14-6-.05(6) (biennial reporting requirements).

(d) Owners or operators of facilities subject to RCRA or AHWMMA permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of 335-14-5-.27, 335-14-5-.28, 335-14-6-.27, and 335-14-6-.28.

(7) <u>Residues of hazardous waste in empty containers</u>.

(a)1. Any hazardous waste remaining in either:

(i) An empty container or

(ii) An inner liner removed from an empty container, as defined in 335-14-2-.01(7)(b), is not subject to regulation under 335-14-2 through 335-14-9 or to the notification requirements of Section 3010 of RCRA.

2. Any hazardous waste in either:

(i) A container that is not empty or

(ii) An inner liner removed from a container that is not empty, as defined in 335-14-2-.01(7)(b) is subject to regulation under 335-14-2 through 335-14-9 and to the notification requirements of Section 3010 of RCRA.

3. Residues removed from an empty container are solid wastes subject to the requirements of 335-14-3-.01(2).

(b)1. A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in 335-14-2-.04(2), or (4)(e) is empty if:

(i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating); and

(ii) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner; or

(iii)(I) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size, or

(II) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.

2. A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

3. A container or an inner liner removed from a container that has held an acute hazardous waste listed in 335-14-2-.04(2), or (4)(e) is empty if:

(i) All visible residues have been removed and the container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(c) Containers of hazardous waste pharmaceuticals are subject to 335-14-7-.16(7) for determining when they are considered empty, in lieu of this section, except as provided by 335-14-7-.16(7)(c) and (d).

(8) PCB wastes regulated under Toxic Substance Control Act. The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under Part 761 of 40 CFR and that are hazardous only because they fail the test for the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) are exempt, except for the provisions of Rules 335-14-5-.25 and

335-14-6-.21, from regulation under 335-14-2 through 335-14-6, and 335-14-9, Parts 270 and 124 of 40 CFR, and the notification requirements of Section 3010 of RCRA.

(9) Requirements for Universal Waste. The wastes listed in 335-14-2-.01(9) are exempt from regulation under 335-14-3 through 335-14-9, except as specified in 335-14-11 and, therefore are not fully regulated as hazardous waste. The wastes listed in 335-14-2-.01(9) are subject to regulation under 335-14-11:

(a) Batteries as described in 335-14-11-.01(2);

(b) Pesticides as described in 335-14-11-.01(3);

(c) Mercury-containing equipment as described in 335-14-11-.01(4);

(d) Lamps as described in 335-14-11-.01(5); and

(e) Aerosol cans described in 335-14-11-.01(6).

(10) Residues of hazardous waste in empty tanks.

(a) 335-14-2-.01(10) only applies to hazardous waste accumulated or stored in tanks. Tanks remain subject to applicable closure standards in 335-14-3, 335-14-5, and 335-14-6 for all hazardous waste numbers placed into the tank since it was last decontaminated, in accordance with 335-14-5-.07 or 335-14-6-.07.

(b) A tank that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in 335-14-2-.04(2), (3), or (4)(e), is empty if:

1. All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of tank (e.g., draining, pumping, and aspirating);

2. No more than 0.3 percent by volume of the total capacity of the tank or 100 gallons, whichever is less, remains in the tank; and

3. The removal of waste in accordance with 335-14-2-.01(10)(b)1. and volume and percent of total capacity remaining in the tank in accordance with 335-14-2-.01(10)(b)2. has been certified with the date, time and name of the person making the certification.

(c)1. Hazardous waste subsequently placed into a tank which has been emptied in accordance with 335-14-2-.01(10)(b) will be identified only by those hazardous waste numbers which are applicable to the waste prior to entering the tank. Any residue remaining in an empty tank system will not cause waste subsequently placed into the tank to be identified pursuant to 335-14-2-.01(3)(a)2.(iv). All hazardous waste numbers applicable to waste placed in the tank since it was last decontaminated will apply to the tank system upon closure.

2. Residues removed from an empty tank are solid wastes subject to the requirements of 335-14-3-.01(2).

(d) Respondents in actions to enforce rules and regulations implementing the AHWMMA, who raise a claim that a tank or tank system was empty in accordance with 335-14-2-.01(10), must demonstrate compliance with 335-14-2-.01(10) by providing appropriate documentation.

[**Note:** Rule 335-14-2-.01(10) is only mandatory when a generator or owner/operator wishes to break the continuing chain of previous hazardous waste numbers. It is not required for demonstrating compliance with the accumulation time limits of Chapter 335-14-3.]

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335-14-2-.02 Criteria for Identifying the Characteristics of Hazardous Waste and for Listing Hazardous Waste.

(1) Criteria for identifying the characteristics of hazardous waste.

(a) The Department shall identify and define a characteristic of hazardous waste in 335-14-2-.03 only upon determining that:

1. A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of, or otherwise managed; and

2. The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

(2) Criteria for listing hazardous waste.

(a) The Department shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

1. It exhibits any of the characteristics of hazardous waste identified in 335-14-2-.03.

2. It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

3. It contains any of the toxic constituents listed in 335-14-2-Appendix VIII, and after considering the following factors, the Department concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent;

(ii) The concentration of the constituent in the waste;

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in 335-14-2-.02(a)3.(vii);

(iv) The persistence of the constituent or any toxic degradation product of the constituent;

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into nonharmful constituents and the rate of degradation;

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems;

(vii) The plausible types of improper management to which the waste could be subjected;

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis;

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent;

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent;

(xi) Such other factors as may be appropriate.

4. Substances will be listed in 335-14-2-Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms. (Wastes listed in accordance with these criteria will be designated Toxic wastes).

(b) The Department may list classes or types of solid waste as hazardous waste if it has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 22-30-3(5) of the AHWMMA.

(c) The Department will use the criteria for listing specified in 335-14-2-.02(2) to establish the exclusion limits referred to in 335-14-2-.01(5)(c).

Authors: Stephen C. Maurer; Amy P Zachry
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
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335-14-2-.03 Characteristics of Hazardous Waste.

(1) General.

(a) A solid waste, as defined in 335-14-2-.01(2), which is not excluded from regulation as a hazardous waste under 335-14-2-.01(4)(b), is a hazardous waste if it exhibits any of the characteristics identified in 335-14-2-.03.

(b) A hazardous waste which is identified by a characteristic in 335-14-2-.03 is assigned every EPA Hazardous Waste Number that is applicable as set forth in 335-14-2-.03. This number must be used in complying with the notification requirements of Section 3010 of the RCRA and all applicable recordkeeping and reporting requirements under 335-14-3 through 335-14-6, 335-14-8 and 335-14-9.

(c) For purposes of 335-14-2-.03, the Department will consider a sample obtained using any of the applicable sampling methods specified in 335-14-2-Appendix I to be a representative sample within the meaning of 335-14-1.

(2) Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

1. It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60°C (140° F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D -93-79 or D -93-80 [incorporated by reference in 335-14-1-.02(2)], or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D -3278-78 [incorporated by reference in 335-14-1-.02(2)].

2. It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

3. It is an ignitable compressed gas.

(i) The term “compressed gas” shall designate any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70°F or, regardless of the pressure at 70°F, having an absolute pressure exceeding 104 p.s.i. at 130°F; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100°F as determined by ASTM Test D – 323.

(ii) A compressed gas shall be characterized as ignitable if any one of the following occurs:

(I) Either a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be acceptable to the Bureau of Explosives and approved by the director, Pipeline and Hazardous Materials Technology, U.S. Department of Transportation (see Note 2).

(II) Using the Bureau of Explosives' Flame Projection Apparatus (see Note 1), the flame projects more than 18 inches beyond the ignition source with valve opened fully, or, the flame flashes back and burns at the valve with any degree of valve opening.

(III) Using the Bureau of Explosives' Open Drum Apparatus (see Note 1), there is any significant propagation of flame away from the ignition source.

(IV) Using the Bureau of Explosives' Closed Drum Apparatus (see Note 1), there is any explosion of the vapor-air mixture in the drum.

4. It is an oxidizer. An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter (see Note 4).

(i) An organic compound containing the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals must be classed as an organic peroxide unless:

(I) The material meets the definition of a Class A explosive or a Class B explosive, as defined in 335-14-2-.03(4)(a)8., in which case it must be classed as an explosive,

(II) The material is forbidden to be offered for transportation according to 49 CFR 172.101 and 49 CFR 173.21,

(III) It is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide, or

(IV) According to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation (see Note 3), it has been determined that the material does not present a hazard in transportation.

[**Note 1:** A description of the Bureau of Explosives' Flame Projection Apparatus, Open Drum Apparatus, Closed Drum Apparatus, and method of tests may be procured from the Bureau of Explosives.]

[**Note 2:** As part of a U.S. Department of Transportation (DOT) reorganization, the Office of Hazardous Materials Technology (OHMT), which was the office listed in the 1980 publication of 49 CFR 173.300 for the purposes of approving sampling and test procedures for a flammable gas, ceased operations on February 20, 2005. OHMT programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]

[**Note 3:** As part of a U.S. Department of Transportation (DOT) reorganization, the Research and Special Programs Administration (RSPA), which was the office listed in the 1980 publication of 49 CFR 173.151a for the purposes of determining that a material does not present a hazard in transport, ceased operations on February 20, 2005. RSPA programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]

[**Note 4:** The DOT regulatory definition of an oxidizer was contained in §173.151 of 49 CFR, and the definition of an organic peroxide was contained in paragraph 173.151a. An organic peroxide is a type of oxidizer.]

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

(3) Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

1. It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 335-14-1-.02(2).

2. It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and as incorporated by reference in 335-14-1-.02(2).

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

(4) Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

1. It is normally unstable and readily undergoes violent change without detonating.

2. It reacts violently with water.

3. It forms potentially explosive mixtures with water.

4. When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

5. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

7. It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

8. It is a forbidden explosive as defined in 49 CFR §173.54, or is a Division 1.1, 1.2, or 1.3 explosive as defined in 49 CFR §§173.50 and 173.53.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

(5) Characteristic of Toxicity.

(a) A solid waste, except manufactured gas plant waste, exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, as incorporated by reference in 335-14-1-.02(2), the extract from a representative sample of the waste contains any of the contaminants listed in Table 1 at the concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of 335-14-2-.03(5).

(b) A solid waste that exhibits the Characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1
MAXIMUM CONCENTRATION OF CONTAMINANTS
FOR THE TOXICITY CHARACTERISTIC

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0[4]
D024	m-Cresol	108-39-4	200.0[4]
D025	p-Cresol	106-44-5	200.0[4]
D026	Cresol	----	200.0[4]
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	l,l-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13[3]
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13[3]

D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0[3]
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1] Hazardous waste number.

[2] Chemical abstracts service number.

[3] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

[4] If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

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Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
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335-14-2-.04 Lists of Hazardous Wastes.

(1) General.

(a) A solid waste is a hazardous waste if it is listed in 335-14-2-.04, unless it has been excluded from this list under 335-14-1-.03(2).

(b) The Department will indicate its basis for listing the classes or types of wastes listed in 335-14-2-.04 by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)

Reactive Waste	(R)
Toxicity Characteristic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

335-14-2-Appendix VII identifies the constituent which caused the Department to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in 335-14-2-.04(2) and (3).

(c) Each hazardous waste listed in 335-14-2-.04 is assigned an EPA or Alabama Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the RCRA and certain recordkeeping and reporting requirements under 335-14-3 through 335-14-6, 335-14-8, and 335-14-9.

(d) The following hazardous wastes listed in 335-14-2-.04(2) are subject to the exclusion limits for acutely hazardous wastes established in 335-14-2-.01(5): EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027.

(2) Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous waste from non-specific sources unless they are excluded under §260.20 of 40 CFR and ADEM Admin. Code Rule 335-14-1-.03(2) and listed in 335-14-2 Appendix IX.

Hazardous Waste Number	**Hazardous Waste**	**Hazard Code**
Generic:		
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl	(I)*

Hazardous Waste Number	Hazardous Waste	Hazard Code
	ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations.	(R,T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R,T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)

F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum-can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in CFR § 258.40 and ADEM Administrative Code Rule 335-14-5-.14(2) or 335-14-6-.14(2). For the purposes of this listing, motor vehicle manufacturing as defined in 335-14-1-.02 and 335-14-2-.04(2)(b)4.(i) describes the recordkeeping requirements for motor vehicle manufacturing facilities.	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)

F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to, and including, five with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 335-14-2-.04(2) or 335-14-2-.04(3).)	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	(T)
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste number deleted in accordance with 335-14-2-.04(6), or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)

F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use cresote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives, containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solid separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 335-14-2-.04(2)(b)2. (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under 335-14-2-.01(4)(a)12.(i), if those residuals are to be disposed of.	(T)

F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/ solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in dissolved air flotation (DAF) units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in 335-14-2-.04(2)(b)2. (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.	(T)
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under 335-14-2-.04. (Leachate resulting from the disposal of one or more of the following EPA hazardous wastes and no other hazardous wastes retains its hazardous waste number(s): F020, F021, F022, F026, F027, and/or F028.)	(T)

* (I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

(b) Listing Specific Definitions:

1. For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and or/solids.

2.(i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks in which intense mechanical aeration is used to completely mix the wastes and enhance biological activity, and

(I) The unit employs a minimum of 6 hp per million gallons of treatment volume; and either

(II) The hydraulic retention time of the unit is no longer than 5 days; or

(III) The hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic;

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listings as F037 and F038 wastes

under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other on-site records, documents and data sufficient to prove that:

(I) The unit is an aggressive biological treatment unit as defined in 335-14-2-.04(2)(b); and

(II) The sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

3.(i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the purposes of the F038 listing,

(I) Sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement, and

(II) Floats are considered to be generated at the moment they are formed in the top of the unit.

4. For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.

(i) Generators must maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records must include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility, and documentation confirming receipt of the waste by the receiving facility. Generators must maintain these documents on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Regional Administrator or ADEM.

(3) Hazardous wastes from specific sources.

(a) The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §260.20 of 40 CFR and ADEM Admin. Code Rule 335-14-1-.03(2) and listed in 335-14-2-Appendix IX.

Hazardous Waste Number	Hazardous Waste	Hazard Code

Wood preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or penta-chlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R,T)
K013	Bottom stream from the acetonitrile column in production of acrylonitrile.	(R,T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)

K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1-1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)

K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.).	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring- chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)

K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)
K159	Organics from the treatment of thiocarbamate wastes.	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.	(R,T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or nonhazardous landfill licensed or permitted by the State of Alabama or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of Subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met.	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	(T)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)

K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide).	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide).	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilemite process.	(T)
K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in 335-14-2-.04(3)(c) of this section that are equal to or greater than the corresponding 335-14-2-.04(3)(c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in 335-13-4-.11, (ii) disposed in a Subtitle C landfill unit subject to either 335-14-5-.14(2) or 335-14-6-.14(2), (iii) disposed in other Subtitle D landfill units that meet the design criteria in 335-13-4-.11, 335-14-5-.14(2), or 335-14-6-.14(2), or (iv) treated in a combustion unit that is permitted under Subtitle C, or an on-site combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in 335-14-2-.03(3)(b). 335-14-2-.03(3)(d) describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous waste under 335-14-2-.03(2) through 335-14-2-.03(5) and 335-14-2-.04(2) through 335-14-2-.04(4) at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)

K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C,T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
K169	Crude oil storage tank sediment from petroleum refining operations	(T)

K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations	(T)
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
Iron and Steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. **NOTE**: This listing does not include sludge generated from secondary acid scrubber systems provided the primary air pollution control system is properly operated and maintained. Exempt sludge must be evaluated to determine if it exhibits a characteristic of a hazardous waste.	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)

K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

(b) Listing Specific Definitions:

1. For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing.

(c) K181 Listing Levels.

1. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

Constituent	**Chemical abstracts No.**	**Mass levels (kg/yr)**
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(d) Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181. The procedures described in sections

335-14-2-.04(3)(d)1-3 and 5 establish when nonwastewaters from the production of dyes/pigments would not be hazardous (these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in 335-14-2-.04(3)(a). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in 335-14-2-.04(3)(a), then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator must maintain documentation as described in 335-14-2-.04(3)(d)4.

1. Determination based on no K181 constituents. Generators that have knowledge (e.g., knowledge of constituents in wastes based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed) that their wastes contain none of the K181 constituents (see 335-14-2-.04(3)(c) of this section) can use their knowledge to determine that their waste is not K181. The generator must document the basis for all such determinations on an annual basis and keep each annual documentation for three years.

2. Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents. If the total annual quantity of dyes and/or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes (e.g., knowledge of constituents in wastes based on prior analytical data and/or information about raw materials used, production processes used, and reaction and degradation products formed) to conclude that annual mass loadings for the K181 constituents are below the 335-14-2-.04(3)(c) listing levels. To make this determination, the generator must:

(i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

(ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator must comply with the requirements of 335-14-2-.04(3)(d)3 for the remainder of the year.

(iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(I) The quantity of dyes and/or pigment nonwastewaters generated.

(II) The relevant process information used.

(III) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

3. Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents. If the total annual quantity of dyes and/or

pigment nonwastewaters generated is greater than 1,000 metric tons, the generator must perform all of the steps described in 335-14-2-.04(3)(d)3(i) through 3(xi) in order to make a determination that its waste is not K181.

(i) Determine which K181 constituents (see 335-14-2-.04(3)(c)) are reasonably expected to be present in the wastes based on knowledge of the wastes (e.g., based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed).

(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator must comply with the procedures for using knowledge described in 335-14-2-.04(3)(d)2. and keep the records described in 335-14-2-.04(3)(d)2.(iv). For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described below.

(iii) Develop a waste sampling and analysis plan (or modify an existing plan) to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan must include:

(I) A discussion of the number of samples needed to characterize the wastes fully;

(II) The planned sample collection method to obtain representative waste samples;

(III) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.

(IV) A detailed description of the test methods to be used, including sample preparation, clean up (if necessary), and determinative methods.

(iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.

(I) The sampling and analysis must be unbiased, precise, and representative of the wastes.

(II) The analytical measurements must be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of 335-14-2-.04(3)(c).

(v) Record the analytical results.

(vi) Record the waste quantity represented by the sampling and analysis results.

(vii) Calculate constituent-specific mass loadings (product of concentrations and waste quantity).

(viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(ix) Determine whether the mass of any of the K181 constituents listed in 335-14-2-.04(3)(c) generated between January 1 and December 31 of any year is below the K181 listing levels.

(x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(I) The sampling and analysis plan.

(II) The sampling and analysis results (including QA/QC data).

(III) The quantity of dyes and/or pigment nonwastewaters generated.

(IV) The calculations performed to determine annual mass loadings.

(xi) Nonhazardous waste determinations must be conducted annually to verify that the wastes remain nonhazardous.

(I) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

(II) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

(III) If the annual testing requirements are suspended, the generator must keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change must be retained.

4. Recordkeeping for the landfill disposal and combustion exemptions. For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator must maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

5. Waste holding and handling. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the 335-14 requirements during the interim period, the generator could be subject to an enforcement action for improper management.

(4) Discarded commercial chemical product, off-specification species, container residues, and spill residues thereof. The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in 335-14-2-.01(2)(a)2., when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in 335-14-2-.04(4)(e) or (f).

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in 335-14-2-.04(4)(e) or (f).

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in 335-14-2-.04(4)(e) or (f) unless the container is empty as defined in 335-14-2-.01(7)(b) or 335-14-7-.16(7).

[Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, ADEM considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in 335-14-2-.04(4)(e) or (f), or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in 335-14-2-.04(4)(e) or (f).

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in 335-14-2-.04(4)(e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in 335-14-2-.04(4)(e) or (f), such waste will be listed in either 335-14-2-.04(2) or 335-14-2-.04(3), or will be identified as a hazardous waste by the characteristics set forth in 335-14-2-.03.]

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in 335-14-2-.04(4)(a) through (d), are identified as acute hazardous wastes (H).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity) and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(l-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl- amino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-

P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol,2,3-dihydro-2,2-dimethyl-, methylcarbamate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compound with (3aS- cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8- trimeth ylphyrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P001	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3- (3-oso-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl- 2,3-dihydro-2,2-dimet hyl-7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-,1-[(dimethyl- amino) carbonyl]-5-methyl-1H-pyrozol- 3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1(1- methylethyl)-1H-pryrazol-5yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohesyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl

		phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10, 10-hexachloro-1,4,4a,5,8,8a- hexahydro-,(1alpha,4 alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a- hexahydr o-, (lalpha,4alpha,4abeta,5beta, 8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-la,2,2a, 3,6,6a, 7,7a-octahydro-,(1alpha, 2beta,2alpha, 3beta,6beta,6alpha,7beta,7alpha)-
P051	[1]72-20-8	2,7:3,6-Dimethanonaphth [2,3- b]oxirene, 3,4,5,6,9,9- hexachloro-la,2,2a,3,6, 6a,7,7a-octahydro-,(1alpha,2beta, 2beta,3alpha,6alpha,6beta,7beta, 7alpha)-, & metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha, alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan
P047	[1]534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde,2,4- dimethyl-,o-[(methylamino)- carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]-2-oxo]-, methyl ester
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino) carbonyl]oxy]-,ethyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparante
P065	628-86-4	Fulminic acid, mercury(2+) salt(R,T)

P059	76-44-8	Heptachlor
P062	757-58-4	Hesaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine,N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro-(R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3- [[(methylamino)-cargonyl]oxy]phenyl]- monohydrochloride
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2- methyl-4-[[(methylamino)carbonyl] oxl]phenyl]-
P050	115-29-7	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a, 6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-lH-indene,1,4,5, 6,7,8, 8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P128	315-8-4	Mexacarbate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(C0)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	[1]54-11-5	Nicotine, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies)
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline

P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine(R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3- dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	[1]534-52-1	Phenol, 2-methyl-4,6-dinitro, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6- dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-,methyl carbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-,methyl carbamate
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4- nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, 0,0-diethyl-S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, 0,0-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, 0,0- dimethyl S-[2-(methylamino)-2- oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(l- methylethyl) ester
P089	56-38-2	Phosphorothioic acid, 0,0-diethyl 0-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, 0,0-diethyl 0-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, 0-[4-[(dimethylamino)sulfonyl] phenyl] 0,0-dimethyl ester
P071	298-00-0	Phosphorothioic acid, 0,0,-dimethyl 0-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-

P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-, methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, l-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-l-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-l-ol
P008	504-24-5	4-Pyridinamine
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2- pyrrolidinyl)-, (S)-, and salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies)
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol,1,2,3,3a,8,8a- hexahydro-1 ,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P114	12039-52-0	Selenious acid, dithallium(l+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide (Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	[1]57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(l+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium(l) selenite
P115	7446-18-6	Thallium(l) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$

P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, l-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
Pl19	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram

[1]CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in 335-14-2-.04(4)(a) through (d), are identified as toxic wastes (T) unless otherwise designated.

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde(I)
U034	75-87-6	Acetaldehyde,trichloro-
U187	62-44-2	Acetamide,N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide,N-9H-fluoren-2-yl-
U240	[1]94-75-7	Acetic acid,(2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethylester(I)
U144	301-04-2	Acetic acid, lead(2+)salt
U214	563-68-8	Acetic acid,thallium(l+)salt
See F027	93-76-5	Acetic acid,(2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone(I)
U003	75-05-8	Acetonitrile(I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetylchloride(C,R,T)

U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid(I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline(I,T)
U136	75-60-5	Arsinicacid,dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2,3:3,4]pyrrolo[l,2-a] indole-4,7-dione,6-amino-8-[[(aminocarbonyl) oxy]methyl]-1,la,2,8,8a,8b-hexahydro-8a-met hoxy-5-methyl-,[laS-(laalpha,8beta,8aalpha,8 balpha)]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarbphenol
U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j]aceanthrylene,1,2-dihydro-3- methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzalchloride
U192	23950-58-5	Benzamide,3,5-dichloro-N-(l,l-dimethyl-2-prop ynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene,7,12-dimethyl-
U012	62-53-3	Benzenamine(I,T)
U014	492-80-8	Benzenamine,4,4-carbonimidoylbis[N,N-dimet hyl-
U049	3165-93-3	Benzenamine,4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine,N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine,2-methyl-
U353	106-49-0	Benzenamine,4-methyl-
U158	101-14-4	Benzenamine,4,4-methylenebis[2-chloro-
U222	636-21-5	Benzenamine,2-methyl-, hydrochloride
U181	99-55-8	Benzenamine,2-methyl-5-nitro-
U019	71-43-2	Benzene(I,T)
U038	510-15-6	Benzeneaceticacid,4-chloro-alpha-(4-chloroph enyl)-alpha-hydroxy-, ethylester
U030	101-55-3	Benzene,l-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid,4-[bis(2- chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid,bis(2- ethylhexyl)ester
U069	84-74-2	1,2-Benzenedicarboxylic acid,dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid,diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid,dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid,dioctyl ester

U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1-(2,2-dichloroethyli- dene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-(R,T)
U239	1330-20-7	Benzene, dimethyl-(I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro-(I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, l-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (l-methylethyl)-(I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1-(2,2,2-trichloro ethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1-(2,2,2-trichloro ethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol,2,2-dimethyl-,methyl carbamate
U364	22961-82-6	1,3,Benzodioxol-4-ol,2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	[1]81-81-2	2H-l-Benzopyran-2-one,4-hydroxy-3-(3-oxo-1-phenyl-butyl)-,&salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride(C,R,T)
U085	1464-53-5	2,2-Bioxirane
U021	92-87-5	[l,l'-Biphenyl]-4,4-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4-diamine,3,3'- dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4-diamine,3,3'- dimethoxy-
U095	119-93-7	[l,l'-Biphenyl]-4,4-diamine,3,3'- dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenylphenylether

U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-
U172	924-16-3	l-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	l-Butanol(I)
U159	78-93-3	2-Butanone(I,T)
U160	1338-23-4	2-Butanone,peroxide(R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U143	303-34-4	2-Butenoicacid,2-methyl-,7-[[2,3- dihydroxy-2 -(1-methoxyethyl)-3- methyl-l-oxobutoxy]meth yl]-2,3,5, 7a-tetrahydro-lH-pyrrolizin-l-yl ester,[lS-[lalpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol(I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid,1H-benzimidazol-2-yl,methyl ester
U271	17804-35-2	Carbamic acid, [1-[butylamino)carbonyl]-1H- benzimidazol-2-yl],methyl ester
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238	51-79-6	Carbamic acid, ethylester
U178	615-53-2	Carbamic acid, methylnitroso-, ethylester
U373	122-42-9	Carbamic acid, phenyl-,1-methylethylester
U409	23564-05-8	Carbamic acid, [1,2-phenylene bis (iminocarbonothioyl)]bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl)ester
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U114	[1]111-54-6	Carbamodithioic acid, 1,2-ethane- diylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(l- methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuranphenol
U215	6533-73-9	Carbonicacid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridicacid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazine
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate

U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calciumsalt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylicacid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene- 1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexa- chloro-, (lalpha,2alpha,3beta, 4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	[1]94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutylphthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene(I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	l,l-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethylether
U027	108-60-1	Dichloroisopropylether
U024	111-91-1	Dichloromethoxyethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane(I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate

U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-DiethylS-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine(I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydro-peroxide (R)
U097	79-44-7	Dimethylcarbamoylchloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine,N-ethyl-N-nitroso-
U155	91-80-5	1,2,Ethanediamine,N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienyl-methyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, l,l-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane,hexachloro-
U024	111-91-1	Ethane,l,l'-[methylenebis(oxy)] bis[2-chloro-
U117	60-29-7	Ethane, l,l'-osybis-(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, l,l,l-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino) carbonyloxy]]bis-, dimethyl ester

U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	[1]116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-,dicarbamate
U004	98-86-2	Ethanone, l-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, l,l-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-,(E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide(I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid(C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methyl-nitrosoamino)-carbonyl] amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene

U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine ,l,l-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide,l-methyl-l-phenylethyl-(R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
Ul90	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol(I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile(I,T)
U092	124-40-3	Methanamine,N-methyl-(I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro-(I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid,ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene,1,2,4,5,6,7,8,8- octac hloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)

U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd] pentalen-2-one,1,la,3,3a,4,5,5, 5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	l-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methylmethacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione,8-acetyl-10[(3-amino-2,3,6-trideoxy)- alpha-L-lyxo-hexopyranosyl) oxy]-7,8,9,10-tetrahydro-6,8,11- trihydroxy-l-methoxy-,(8S-cis)-
U167	134-32-7	l-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine,N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'- biphenyl]-4,4'-diyl) bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4,Naphthaquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-9-5-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane(I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea

U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane,2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl) tetrahydro-,2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol ,2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-,(E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2-methylenebis [3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-,methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine,4-[bis(2- chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+) salt(2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methylester
U189	1314-80-3	Phosphorous sulfide (R)
U190	85-44-9	Phthalic anhydride
Ul91	109-06-8	2-Picoline
U179	100-75-4	Piperidine, l-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	l-Propanamine (I,T)
U111	621-64-7	l-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	l-Propanamine, N-propyl-(I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-

U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro-(I,T)
U027	108-60-1	Propane, 2,2-oxybis[2-chloro-
U193	1120-71-4	1,3-Propanesultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichloro- phenoxy)-
U235	126-72-7	l-Propanol, 2,3-dibromo-,phosphate (3:1)
U140	78-83-1	l-Propanol, 2-methyl-(I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	l-Propene, 1,3-dichloro-
U243	1888-71-7	l-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile,2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham
U411	114-26-1	Propoxur
U387	52888-80-9	Prosulfocarb
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
Ul91	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(lH,3H)-Pyrimidinedione,5-[bis (2-chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone,2,3-dihydro-6- methyl-2-t hioxo-
U180	930-55-2	Pyrrolidine,l-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2(R,T)
U015	79-34-5	L-Serine, diazoacetate(ester)
SeeF027	115-02-6	Silves(2,4,5-TP)
U206	93-72-1	Streptozotocin
U103	18883-66-4	Sulfuric acid, dimethylester
U189	77-78-1	Sulfur phosphide (R)
SeeF027	1314-80-3	2,4,5-T
U207	93-76-5	1,2,4,5-Tetrachlorobenzene
U208	95-94-3	1,1,1,2-Tetrachloroethane
U209	630-20-6	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene

SeeF027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran(I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb
U153	74-93-1	Thiomethanol(I,T)
U244	137-26-8	Thioperoxydicarbonic diamide[$(H_2N)C(S)]2S2$,tetrameth
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate(R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidinehydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	lH-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene(R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	59-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	[1]81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene(I)
U200	50-55-5	Yohimban-16-carboxylicacid,11,17- dimethoxy-18-[(3,4,5-trimethoxy- benzoyl)oxy]-,methyleester,(3beta, 16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zincphosphide,Zn3P2,when present at concentrations of 10% or less

[1]CAS Number given for parent compound only.

(5) **[Reserved].**

(6) Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of 335-14-2-.04(6)(b) and (c). These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner which minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the groundwater, surface water, or atmosphere.

1. Generators shall do one of the following:

(i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with 335-14-2-.04(6);

(ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with 335-14-2-.04(6); or

(iii) Document cleaning and replacement in accordance with 335-14-2-.04(6), carried out after termination of use of chlorophenolic preservatives.

2. Cleaning Requirements.

(i) Prepare and sign a written equipment cleaning plan that describes:

(I) The equipment to be cleaned;

(II) How the equipment will be cleaned;

(III) The solvent to be used in cleaning;

(IV) How solvent rinses will be tested; and

(V) How cleaning residues will be disposed.

(ii) Equipment must be cleaned as follows:

(I) Remove all visible residues from process equipment;

(II) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(iii) Analytical requirements.

(I) Rinses must be tested by using an appropriate method.

(II) "Not detected" means at or below the following lower method calibration limits (MCLs): The 2,3,7,8-TCDD-based MCL-0.01 parts per trillion (ppt), sample weight of 1000g, IS spiking level of 1 ppt, final extraction volume of 10-50 µL. For other congeners - multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

(iv) The generator must manage all residues from the cleaning process as F032 waste.

3. Replacement requirements.

(i) Prepare and sign a written equipment replacement plan that describes:

(I) The equipment to be replaced;

(II) How the equipment will be replaced; and

(III) How the equipment will be disposed.

(ii) The generator must manage the discarded equipment as F032 waste.

4. Documentation requirements.

(i) Document that previous equipment cleaning and/or replacement was performed in accordance with 335-14-2-.04(6) and occurred after cessation of use of chlorophenolic preservatives.

(c) The generator must maintain the following records documenting the cleaning and replacement as part of its operating record:

1. The name and address of the generator;

2. Formulations previously used and the date on which their use ceased in each process at the plant;

3. Formulations currently used in each process at the plant;

4. The equipment cleaning or replacement plan;

5. The name and address of any persons who conducted the cleaning and replacement;

6. The dates on which cleaning and replacement were accomplished;

7. The dates of sampling and testing;

8. A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

9. A description of the tests performed, the date the tests were performed, and the results of the tests;

10. The name and model numbers of the instrument(s) used in performing the tests;

11. QA/QC documentation; and

12. The following statement signed by the generator or his authorized representative:

I certify under penalty of law that all process equipment required to be cleaned or replaced under 335-14-2-.04(6) was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

(7) **[Reserved].**

(8) **[Reserved].**

(9) **[Reserved].**

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Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
History: November 19, 1980. **Amended:** Effective: April 9, 1986; **Amended:** Effective: September 29, 1986; **Amended:** Effective: February 15, 1988; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: January 25, 1992; **Amended:** Effective: January 5, 1995; **Amended:** Effective: January 12, 1996; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 2, 1999; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: April 17, 2003; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: May 27, 2008; **Amended:** Effective: March 31, 2009; **Amended:** Effective: March 31, 2011; **Amended:** Effective: April 3, 2012; **Amended:** Effective: April 8, 2016; **Amended:** Effective: March 31, 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 28, 2020**;** Effective: April 13, 2020; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-2-.05 Exclusions/Exemptions.

(1) Conditional exclusion for used, broken cathode ray tubes (CRTs) and processed CRT glass undergoing recycling. Used, broken CRTs are not solid wastes if they meet the following conditions:

(a) Prior to processing: These materials are not solid wastes if they are destined for recycling and if they meet the following requirements:

1. Storage. The broken CRTs must be either:

(i) Stored in a building with a roof, floor, and walls, or

(ii) Placed in a container (i.e., a package or a vehicle) that is constructed, filled, and closed to minimize releases to the environment of CRT glass (including fine solid materials).

2. Labeling. Each container in which the used, broken CRT is contained must be labeled or marked clearly with one of the following phrases: "Used cathode ray tube(s) - contains leaded glass" or "Leaded glass from televisions or computers." It must also be labeled: "Do not mix with other glass materials."

3. Transportation. The used, broken CRTs must be transported in a container meeting the requirements of 335-14-2-.05(1)(a)1.(ii) and (a)2.

4. Speculative accumulation and use constituting disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in 335-14-1-.02. If they are used in a manner constituting disposal, they must comply with the applicable requirements of 335-14-7-.03 instead of the requirements of this section.

5. Exports. In addition to the applicable conditions specified in 335-14-2-.05(1)(a)1. – 4. exporters of used, broken CRTs must comply with the following requirements:

(i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted sixty (60) days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the exporter, and include the following information:

(I) Name, mailing address, telephone number and EPA ID number (if applicable) of the exporter of the CRTs.

(II) The estimated frequency or rate at which the CRTs are to be exported and the period of time over which they are to be exported.

(III) The estimated total quantity of CRTs specified in kilograms.

(IV) All points of entry to and departure from each foreign country through which the CRTs will pass.

(V) A description of the means by which each shipment of the CRTs will be transported [e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.)].

(VI) The name and address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.

(VII) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

(VIII) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in such country and the nature of their handling while there.

(ii) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 1200 Pennsylvania Ave., NW., Washington, DC. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(iii) Upon request by EPA, the exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(iv) EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of 335-14-2-.05(1)(a)5.(i) of this section.

(v) The export of CRTs is prohibited unless the receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA will forward an Acknowledgment of Consent to Export CRTs to the exporter. Where the receiving country objects to receipt of the CRTs or withdraws a prior consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.

(vi) When the conditions specified on the original notification change, the exporter must provide EPA with a written renotification of the change, except for changes to the telephone number in 335-14-2-.05(1)(a)5.(i)(I) and decreases in the quantity indicated pursuant to 335-14-2-.05(1)(a)5.(i)(III). The shipment cannot take place until consent of the receiving country to the changes has been obtained [except for changes to information about points of entry and departure and transit countries pursuant to 335-14-2-.05(1)(a)5.(i)(IV) and (VIII)] and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.

(vii) A copy of the Acknowledgment of Consent to Export CRTs must accompany the shipment of CRTs. The shipment must conform to the terms of the Acknowledgment.

(viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs must renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with 335-14-2-.05(1)(a)5.(vi) and obtain another Acknowledgment of Consent to Export CRTs.

(ix) Exporters must keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment.

(x) CRT exporters must file with EPA no later than March 1 of each year, an annual report summarizing the quantities (in kilograms), frequency of shipment, and ultimate destination(s) (i.e., the facility or facilities where the recycling occurs) of all used CRTs exported during the previous calendar year. Such reports must also include the following:

(I) The name, EPA ID number (if applicable), and mailing and site address of the exporter;

(II) The calendar year covered by the report;

(III) A certification signed by the CRT exporter that states:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(xi) Annual reports must be submitted to the office specified in paragraph (a)(5)(ii) of this section. Exporters must keep copies of each annual report for a period of at least three years from the due date of the report.

(b) Requirements for used CRT processing: Used, broken CRTs undergoing CRT processing as defined in 335-14-1-.02 are not solid wastes if they meet the following requirements:

1. Storage. Used, broken CRTs undergoing processing are subject to the requirement of 335-14-2-.05(1)(a)4.

2. Processing.

(i) All activities specified in paragraphs (b) and (c) of the definition of "CRT processing" in 335-14-1-.02 must be performed within a building with a roof, floor, and walls; and

(ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(c) Processed CRT glass sent to CRT glass making or lead smelting: Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in 335-14-1-.02.

(d) Use constituting disposal: Glass from used CRTs that is used in a manner constituting disposal must comply with the requirements of 335-14-7-.03 instead of the requirements of this section.

(2) Conditional exclusion for used, intact cathode ray tubes (CRTs) exported for recycling. Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of 335-14-2-.05(1)(a)5., and if they are not speculatively accumulated as defined in 335-14-1-.02.

(3) Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse**.**

(a) CRT exporters who export used, intact CRTs for reuse must send a notification to EPA. This notification may cover export activities extending over a twelve (12) month or lesser period.

1. The notification must be in writing, signed by the exporter, and include the following information:

(i) Name, mailing address, telephone number, and EPA ID number (if applicable) of the exporter of the used, intact CRTs;

(ii) The estimated frequency or rate at which the used, intact CRTs are to be exported for reuse and the period of time over which they are to be exported;

(iii) The estimated total quantity of used, intact CRTs specified in kilograms;

(iv) All points of entry to and departure from each transit country through which the used, intact CRTs will pass, a description of the approximate length of time the used, intact CRTs will remain in such country, and the nature of their handling while there;

(v) A description of the means by which each shipment of the used, intact CRTs will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));

(vi) The name and address of the ultimate destination facility or facilities where the used, intact CRTs will be reused, refurbished, distributed, or sold for reuse and the estimated quantity of used, intact CRTs to be sent to each facility, as well as the name of any alternate destination facility or facilities;

(vii) A description of the manner in which the used, intact CRTs will be reused (including reuse after refurbishment) in the foreign country that will be receiving the used, intact CRTs; and

(viii) A certification signed by the CRT exporter that states:

"I certify under penalty of law that the CRTs described in this notice are intact and fully functioning or capable of being functional after refurbishment and that the used CRTs will be reused or refurbished and reused. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

2. Notifications required by 335-14 shall be addressed to the following:

Mail:
Office of Enforcement and Compliance Assurance
Office of Federal Activities
International Compliance Assurance Division (Mail Code 2254A)
Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460

Hand Delivery:
Office of Enforcement and Compliance Assurance
Office of Federal Activities
International Compliance Assurance Division (Mail Code 2254A),
Environmental Protection Agency, Management
William Jefferson Clinton Building, Room 6144
1200 Pennsylvania Ave, NW.
Washington, DC 20460.

In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(b) CRT exporters of used, intact CRTs sent for reuse must keep copies of normal business records, such as contracts, demonstrating that each shipment of exported used, intact CRTs will be reused. This documentation must be retained for a period of at least three years from the date the CRTs were exported. If the documents are written in a language other than English, CRT exporters of used, intact CRTs sent for reuse must provide both the original, non-English version of the normal business records as well as a third-party translation of the normal business records into English within 30 days upon request by EPA.

Authors: Theresa A. Maines, Marlon McMillian, Metz P. Duites; Vernon H. Crockett.
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335-14-2-.06 [Reserved].

335-14-2-.07 [Reserved].

335-14-2-.08 Financial Requirements for Management of Excluded Hazardous Secondary Materials.

(1) Applicability

(a) The requirements of this subpart apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary materials excluded under 335-14-2-.01(4)(a)24., except as provided otherwise in this section.

(b) States and the Federal government are exempt from the financial assurance requirements of this subpart.

(2) Definitions of terms as used in this section.
Some terms used in this section are defined in 335-14-1-.02 have the same meaning as those used in 335-14-6-.08.

(3) Cost estimate

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility.

1. The estimate must equal the cost of conducting the activities described in paragraph (a) at the point when the extent and manner of the facility's operation would make these activities the most expensive; and

2. The cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02.) The owner or operator may use costs for on-site disposal in accordance with applicable requirements if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

3. The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under 335-14-6-.07(4)(d), facility structures or equipment, land, or other assets associated with the facility.

4. The owner or operator may not incorporate a zero cost for hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under 335-14-6-.07(4)(d) that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-2-.08(4). For owners and operators using the financial test or corporate guarantee, the cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal

year and before submission of updated information to the Department as specified in 335-14-2-.08(4)(e)3. The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in 335-14-2-.08(3)(b)1. and (b)2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

2. Subsequent adjustment are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in 335-14-2-.08(3)(a) or no later than 60 days after an unexpected event which increases the cost of conducting the activities described in 335-14-2-.08(3)(a). The revised cost estimate must be adjusted for inflation as specified in 335-14-2-.08(3)(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with paragraphs 335-14-2-.08(3)(a) and (c) and, when this estimate has been adjusted in accordance with 335-14-2-.08(3)(b), the latest adjusted cost estimate.

(4) Per 335-14-2-.01(4)(a)24.(vi)(VI), an owner or operator of a reclamation or intermediate facility must have financial assurance as a condition of the exclusion as required 335-14-2-.01(4)(a)24. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) Trust fund

1. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by establishing a trust fund which conforms to the requirements of 335-14-2-.08(4)(a) and submitting an originally signed duplicate of the trust agreement to the Department. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-2-.08(12)(a)1., and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see 335-14-2-.08(12)(a)2. Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

3. The trust fund must be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of this section.

4. Whenever the current cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the

trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or obtain other financial assurance as specified in 335-14-2-.08(4) to cover the difference.

5. If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current cost estimate.

6. If an owner or operator substitutes other financial assurance as specified in 335-14-2-.08(4) for all or part of the trust fund, he may submit a written request to the Department for release of the amount in excess of the current cost estimate covered by the trust fund.

7. Within 60 days after receiving a request from the owner or operator for release of funds as specified 335-14-2-.08(4)(a)5. or 6., the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing. If the owner or operator begins final closure under subpart 335-14-5-.07 or 335-14-6-.07, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with 335-14-2-.08(4)(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Department does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

8. The Department will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-2-.08(4); or

(ii) The Department releases the owner or operator from the requirements of this section in accordance with paragraph 335-14-2-.08(4)(i).

(b) Surety bond guaranteeing payment into a trust fund.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by obtaining a surety bond which conforms to the requirements of this 335-14-2-.08(4)(b) and submitting the bond to the Department. The surety company issuing the

bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-2-.08(12)(b).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-2-.08(4) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-2-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of 335-14-2-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-2-.08(4)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-2-.08(12)(a)) to show current cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under 335-14-2-.01(4)(a)24; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the Department becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in 335-14-2-.08(4), and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current cost estimate, except as provided in 335-14-2-.08(4)(f).

7. Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-2-.08(4) to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in 335-14-2-.08(4).

(c) Letter of credit.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-2-.08(4)(c) and submitting the letter to the Department. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. The wording of the letter of credit must be identical to the wording specified in 335-14-2-.08(12)(c).

3. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-2-.08(4) must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in 335-14-2-.08(4)(a) of this section, except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-2-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-2-.08(4)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-2-.08(12)(a)) to show current cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number (if any issued), name, and address of the facility, and the amount of funds assured for the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current cost estimate, except as provided in 335-14-2-.08(4)(f).

7. Whenever the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-2-.08(4) to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current cost estimate following written approval by the Department.

8. Following a determination by the Department that the hazardous secondary materials do not meet the conditions of the exclusion under 335-14-2-.01(4)(a)24., the Department may draw on the letter of credit.

9. If the owner or operator does not establish alternate financial assurance as specified in 335-14-2-.08(4) and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department will draw on the letter of credit. The Department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in 335-14-2-.08(4) and obtain written approval of such assurance from the Department.

10. The Department will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-2-.08(4); or

(ii) The Department releases the owner or operator from the requirements of this section in accordance with paragraph 335-14-2-.08(4)(i).

(d) Insurance.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by obtaining insurance which conforms to the requirements of this 335-14-2-.08(4)(d) and submitting a certificate of such insurance to the Department. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

2. The wording of the certificate of insurance must be identical to the wording specified in 335-14-2-.08(12)(d).

3. The insurance policy must be issued for a face amount at least equal to the current cost estimate, except as provided in paragraph 335-14-2-.08(4)(f) of this section. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4. The insurance policy must guarantee that funds will be available whenever needed to pay the cost of removal of all hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under 335-14-5-.07 or 335-14-6-.07, as applicable, for the facilities covered by this policy. The policy must also guarantee that once funds are needed, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

5. After beginning partial or final closure under 335-14-5 or 335-14-6, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Department will instruct the insurer to make reimbursements in such amounts as the Department specifies in writing if the Department determines that the expenditures are in accordance with the approved plan or otherwise justified. If the Department has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with 335-14-2-.08(4)(h), that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the Department does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

6. The owner or operator must maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in 335-14-2-.08(4)(i)10. of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in 335-14-2-.08(4),

will constitute a significant violation of these regulations warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7. Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8. The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Department deems the facility abandoned; or

(ii) Conditional exclusion or interim status is lost, terminated, or revoked; or

(iii) Closure is ordered by the Department or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as a debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

9. Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-2-.08(4) to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the Department.

10. The Department will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-2-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-2-.08(4) in accordance with 335-14-2-.08(4)(i).

(e) Financial test and corporate guarantee.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by demonstrating that he passes a financial test as specified in 335-14-2-.08(4)(e). To pass this test the owner or operator must meet the criteria of either paragraph335-14-2-.08(4)(e)1.(i) or (ii):

(i) The owner or operator must have:

(I) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(II) Net working capital and tangible net worth each at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

2. The phrase "current cost estimates" as used in 335-14-2-.08(4)(e)1. refers to the cost estimates required to be shown in paragraphs 1–4 of the letter from the owner's or operator's chief financial officer (335-14-2-.08(12)(e)). The phrase "current plugging and abandonment cost estimates" as used in 335-14-2-.08(4)(e)1. of this section refers to the cost estimates required to be shown in paragraphs 1– 4 of the letter from the owner's or operator's chief financial officer (40 CFR 144.70(f)).

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-2-.08(12)(e); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies 335-14-2-.08(4)(e)1.(i) that are different from the data in the audited financial statements referred to in 335-14-2-.08(4)(e)3.(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any differences.

4. The owner or operator may obtain an extension of the time allowed for submission of the documents specified in 335-14-2-.08(4)(e)3. if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Department. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number (if any issued), name, address, and current cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations in this subpart;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in 335-14-2-.08(4)(e)3; and

(vi) Certify that the year end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

5. After the initial submission of items specified in 335-14-2-.08(4)(e)3., the owner or operator must send updated information to the Department

within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified 335-14-2-.08(4)(e)3.

6. If the owner or operator no longer meets the requirements of 335-14-2-.08(4)(e)1., he must send notice to the Department of intent to establish alternate financial assurance as specified in 335-14-2-.08(4). The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

7. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-2-.08(4)(e)1, require reports of financial condition at any time from the owner or operator in addition to those specified in 335-14-2-.08(4)(e)3. If the Department, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of 335-14-2-.08(4)(e)1., the owner or operator must provide alternate financial assurance as specified in 335-14-2-.08(4) within 30 days after notification of such a finding.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see 335-14-2-.08(4)(e)3(ii)). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in 335-14-2-.08(4) within 30 days after notification of the disallowance.

9. The owner or operator is no longer required to submit the items specified in 335-14-2-.08(4)(e)3. when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-2-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-2-.08(4) in accordance with 335-14-2-.08(4)(i).

10. An owner or operator may meet the requirements of 335-14-2-.08(4) by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-2-.08(4)(e)1. through 8. and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in 335-14-2-.08(12)(g)1. A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-2-.08(4)(e)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe

this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) Following a determination by the Department that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under 335-14-2-.01(4)(a)24, the guarantor will dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure requirements found in 335-14-5 or 335-14-6, as applicable, or establish a trust fund as specified in 335-14-2-.08(4)(a) in the name of the owner or operator in the amount of the current cost estimate.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in 335-14-2-.08(4) and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-2-.08(4) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in 335-14-2-.08(4)(a) through (d), except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-2-.08(4) to meet the requirements for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA Identification Number (if any issued), name, address, and the amount of funds assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Removal and Decontamination Plan for Release.

1. An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from his financial assurance obligations under 335-14-2-.01(4)(a)24.(vi)(VI) must submit a plan for removing all hazardous secondary material residues to the Department at least 180 days prior to the date on which he expects to cease to operate under the exclusion.

2. The plan must include, at least:

(i) For each hazardous secondary materials storage unit subject to financial assurance requirements under 335-14-2-.01(4)(a)24.(vi)(VI), a description of how all excluded hazardous secondary materials will be recycled or sent for recycling, and how all residues, contaminated containment systems (liners, etc.), contaminated soils, subsoils, structures, and equipment will be removed or decontaminated as necessary to protect human health and the environment, and

(ii) A detailed description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; and

(iii) A detailed description of any other activities necessary to protect human health and the environment during this timeframe, including, but not limited to, leachate collection, run-on and run-off control, etc.; and

(iv) A schedule for conducting the activities described which, at a minimum, includes the total time required to remove all excluded hazardous secondary materials for recycling and decontaminate all units subject to financial assurance under335-14-2-.01(4)(a)24.(vi)(VI) and the time required for intervening activities which will allow tracking of the progress of decontamination.

3. The Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the plan. The Department will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The Department will approve, modify, or disapprove the plan within 90 days of its receipt. If the Department does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Department will approve or modify this plan in writing within 60 days. If the Department modifies the plan, this modified plan becomes the approved plan. The Department must assure that the approved plan is consistent with 335-14-2-.08(4)(h). A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

4. Within 60 days of completion of the activities described for each hazardous secondary materials management unit, the owner or operator must submit to the Department, by registered mail, a certification that all hazardous secondary materials have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification must be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the Department, upon request, until he releases the owner or operator from the financial assurance requirements for 335-14-2-.01(4)(a)24.(vi)(VI).

(i) Release of the owner or operator from the requirements of 335-14-2-.08(4). Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per 335-14-2-.08(4)(h), the Department will notify the owner or operator in writing that he is no longer required under 335-14-2-.01(4)(a)24(vi)(VI) to maintain financial assurance for that facility or a unit at the facility, unless the Department has reason to believe that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

(5) **[Reserved].**

(6) **[Reserved].**

(7) **[Reserved].**

(8) Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under 335-14-2-.01(4)(a)24.(vi)(VI), or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in 335-14-2-.08(8)(a)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-2-.08(8)(a).

(i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to

the wording specified in 335-14-2-.08(12)(h). The wording of the certificate of insurance must be identical to the wording specified in 335-14-2-.08(12)(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Department. If requested by a Department, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

2. An owner or operator may meet the requirements of 335-14-2-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-2-.08(8)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-2-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a surety bond for liability coverage as specified in 335-14-2-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-2-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by 335-14-2-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this 335-14-2-.08(8)(a), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-2-.08(8)(a)1. through 6; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under 335-14-2-.08(8)(a)1. through 6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from

the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-2-.08(8)(a)1. through 6.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in 335-14-1-.02(1), which are used to manage hazardous secondary materials excluded under 335-14-2-.01(4)(a)24. or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in 335-14-2-.08(8)(b)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-2-.08(8)(b).

(i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in 335-14-2-.08(12)(h). The wording of the certificate of insurance must be identical to the wording specified in 335-14-2-.08(12)(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Department. If requested by the Department, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

2. An owner or operator may meet the requirements of 335-14-2-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-2-.08(12)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-2-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a surety bond for liability coverage as specified in 335-14-2-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-2-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by 335-14-2-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under 335-14-2-.08(8)(b), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-2-.08(8)(b)1. through 6.; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is entered between the owner or operator and third-party claimant for liability coverage under 335-14-2-.08(8)(b)1. through 6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-2-.08(8)(b)1. through 6.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Department that the levels of financial responsibility required by 335-14-2-.08(8)(a) or (b) are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the owner or operator may obtain a variance from the Department. The request for a variance must be submitted in writing to the Department. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Department to determine a level of financial responsibility other than that required by 335-14-2-.08(8)(a) or (b).

(d) Adjustments by the Department. If the Department determines that the levels of financial responsibility required by 335-14-2-.08(8)(a) or (b) are not consistent with the degree and duration of risk associated with treatment and/or

storage at the facility or group of facilities, the Department may adjust the level of financial responsibility required under 335-14-2-.08(8)(a) or (b) as may be necessary to protect human health and the environment. This adjusted level will be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, he may require that an owner or operator of the facility comply with 335-14-2-.08(8)(b). An owner or operator must furnish to the Department, within a reasonable time, any information which the Department requests to determine whether cause exists for such adjustments of level or type of coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per 335-14-2-.08(4)(h), the Department will notify the owner or operator in writing that he is no longer required under 335-14-2-.01(4)(a)24.(vi)(VI) to maintain liability coverage for that facility or a unit at the facility, unless the Department has reason to believe that that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(f) Financial test for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(8) by demonstrating that he passes a financial test as specified in 335-14-2-.08(8)(f). To pass this test the owner or operator must meet the criteria of 335-14-2-.08(8)(f)1.(i) or (ii):

(i) The owner or operator must have:

(I) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(II) Tangible net worth of at least $10 million; and

(III) Assets in the United States amounting to either:

I. At least 90 percent of his total assets; or

II. At least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth of at least $10 million; and

(III) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(IV) Assets in the United States amounting to either:

I. At least 90 percent of his total assets; or

II. At least six times the amount of liability coverage to be demonstrated by this test.

2. The phrase "amount of liability coverage" as used in 335-14-2-.08(8)(f)1. refers to the annual aggregate amounts for which coverage is required under 335-14-2-.08(8)(a) and (b) and the annual aggregate amounts for which coverage is required under 335-14-5-.08(8)(a) and (b) and 335-14-6-.08(8)(a) and (b).

3. To demonstrate that he meets this test, the owner or operator must submit the following three items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-2-.08(12)(f). If an owner or operator is using the financial test to demonstrate both assurance as specified by 335-14-2-.08(4)(e), and liability coverage, he must submit the letter specified in 335-14-2-.08(12)(f) to cover both forms of financial responsibility; a separate letter as specified in 335-14-2-.08(12)(e) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies 335-14-2-.08(8)(f)1.(i) that are different from the data in the audited financial statements referred to in 335-14-2-.08(8)(f)3.(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, yearend financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any difference.

4. The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in 335-14-2-.08(8)(f)3. if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the

owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Department. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in 335-14-2-.08(8)(f)3; and

(vi) Certify that the year end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

5. After the initial submission of items specified in 335-14-2-.08(8)(f)3., the owner or operator must send updated information to the within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-2-.08(8)(f)3.

6. If the owner or operator no longer meets the requirements of 335-14-2-.08(8)(f)1, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in 335-14-2-.08(8). Evidence of liability coverage must be submitted to the Department within 90 days after the end of the fiscal year for which the year end financial data show that the owner or operator no longer meets the test requirements.

7. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see 335-14-2-.08(8)(f)3.(ii). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in 335-14-2-.08(8) within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

1. Subject to 335-14-2-.08(8)(g)2., an owner or operator may meet the requirements of 335-14-2-.08(8) by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the

owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-2-.08(8)(f)1. through 6. The wording of the guarantee must be identical to the wording specified in 335-14-2-.08(12)(g)2. A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-2-.08(8)(f)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) **[Reserved].**

2. (i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of 335-14-2-.08(8) only if the Attorneys General or Insurance Commissioners of:

(I) The State in which the guarantor is incorporated; and

(II) Each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in 335-14-2-.08(8) and 335-14-2-.08(12)(g)2. is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of 335-14-2-.08(8) only if:

(I) The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business; and if

(II) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in 335-14-2-.08(8) and 335-14-2-.08(12)(g)2. is a legally valid and enforceable obligation in that State.

(h) Letter of credit for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(8) by obtaining an irrevocable standby letter of credit that conforms to the requirements of 335-14-2-.08(8)(h) and submitting a copy of the letter of credit to the Department.

2. The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

3. The wording of the letter of credit must be identical to the wording specified in 335-14-2-.08(12)(j).

4. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-2-.08(8) may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

5. The wording of the standby trust fund must be identical to the wording specified in 335-14-2-.08(12)(m).

(i) Surety bond for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(8) by obtaining a surety bond that conforms to the requirements of 335-14-2-.08(8)(i) and submitting a copy of the bond to the Department.

2. The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

3. The wording of the surety bond must be identical to the wording specified in 335-14-2-.08(12)(k).

4. A surety bond may be used to satisfy the requirements of 335-14-2-.08(8) only if the Attorneys General or Insurance Commissioners of:

(i) The State in which the surety is incorporated; and

(ii) Each State in which a facility covered by the surety bond is located have submitted a written statement to EPA that a surety bond executed as described in 335-14-2-.08(8) and 335-14-2-.08(12)(k) is a legally valid and enforceable obligation in that State.

(j) Trust fund for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-2-.08(8) by establishing a trust fund that conforms to the requirements of 335-14-2-.08(8)(j) and submitting an originally signed duplicate of the trust agreement to the Department.

2. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

3. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of 335-14-2-.08(8). If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in 335-14-2-.08(8) to cover the difference. For purposes of this paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by 335-14-2-.08(8), less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

4. The wording of the trust fund must be identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(l).

(9) Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in ADEM Admin. Code r. 335-14-2-.08(4)(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.

(b) An owner or operator who fulfills the requirements of ADEM Admin. Code r. 335-14-2-.08(4) or 335-14-2-.08(8) by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

(10) [Reserved].

(11) [Reserved].

(12) Wording of the instruments.

(a)1. A trust agreement for a trust fund, as specified in ADEM Admin. Code r. 335-14-2-.08(4)(a) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____" or "a national bank"], the "Trustee."

Whereas, the Alabama Department of Environmental Management, "the Department," an agency of the State of Alabama, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a facility regulated under ADEM Admin. Code r. 335-14-5, or 335-14-6, or satisfying the conditions of the exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24. shall provide assurance that funds will be available if needed for care of the facility under ADEM Admin. Code r. 335-14-5-.07 or 335-14-6-.07, as applicable,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number (if available), name, address, and the current cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Department in the event that the hazardous secondary materials of the grantor no longer meet the conditions of the exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor,

any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the Department shall direct, in writing, to provide for the payment of the costs of the performance of activities required under ADEM Admin. Code r. 335-14-5-.07 or 335-14-6-.07 for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Department from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a–1 *et seq.*,

including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date

of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department, or his designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate Department, or by the Trustee and the appropriate Department if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Alabama.

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(a)1. as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in ADEM Admin. Code r. 335-14-2-.08(4)(a).

State of_____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

_____
[Signature of Notary Public]

(b) A surety bond guaranteeing payment into a trust fund, as specified in ADEM Admin. Code r. 335-14-2-.08(4)(b), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Financial Guarantee Bond

Date bond executed: _____

Effective date: _____

Principal:
_____
[legal name and business address of owner or operator]

Type of Organization: _____
[insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): _____
[name(s) and business address(es)]

EPA Identification Number, name, address and amount(s) for each facility guaranteed by this bond: _____

Total penal sum of bond: $_____

Surety's bond number: _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the Alabama Department of Environmental Management in the event that the hazardous secondary materials at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24, in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as cosureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Alabama Hazardous Wastes Management and Minimization Act of 1978 (AHWMMA), as amended, to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under ADEM Admin. Code r. 335-14-2-.01(4)(a)24., and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24., and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary materials from coverage as solid waste under ADEM Admin. Code r. 335-14-2-.01(4)(a)24.,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the Department or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in ADEM Admin. Code r. 335-14-2-.08, as applicable, and obtain the Department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Department that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Department.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Department, as evidenced by the return receipts. The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Department.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Department.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)] _____

[Name(s)] _____

[Title(s)] _____

[Corporate seal] _____

Corporate Surety(ies)

[Name and address]

State of incorporation:

Liability limit: $_____

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $_____

(c) A letter of credit, as specified in ADEM Admin. Code r. 335-14-2-.08(4)(c), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Director

Alabama Department of Environmental Management

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No._____ in your favor, in the event that the hazardous secondary materials at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24., at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars $_____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No._____, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Alabama Hazardous Wastes Management Act of 1978, as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(c) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

A certificate of insurance, as specified in ADEM Admin. Code r. 335-14-2-.08(4)(e), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certificate of Insurance

Name and Address of Insurer (herein called the "Insurer"):_____

Name and Address of Insured (herein called the "Insured"):_____

Facilities Covered: [List for each facility: The EPA Identification Number (if any issued), name, address, and the amount of insurance for all facilities covered, which must total the face amount shown below.]

Face Amount: _____

Policy Number: _____

Effective Date: _____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable regulations all hazardous secondary materials can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of ADEM Admin. Code r. 335-14-2-.08(4)(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Department, the Insurer agrees to furnish to the Department a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(d) such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]

A letter from the chief financial officer, as specified in ADEM Admin. Code r. 335-14-2-.08(4)(e), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Letter From Chief Financial Officer

[Address to the Department in which facilities for which financial responsibility is to be demonstrated through the financial test are located].

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in ADEM Admin. Code r. 335-14-2-.08.

[Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in ADEM Admin. Code r. 335-14-2-.08. The current cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-2-.08, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: _____.

The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____, or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States outside of Alabama, where EPA or some designated authority is administering the financial requirements of ADEM Admin. Code r. 335-14-2-.08, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ADEM Admin. Code r. 335-14-2-.08. The current cost estimates covered by such a test are shown for each facility: _____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to the state through the financial test or any other financial assurance mechanism specified in ADEM Admin. Code r. 335-14-2-.08 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____.

7. This firm guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the Department through the financial test or any other financial assurance mechanism specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

This firm [insert “is required” or “is not required”] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of 335-14-2-.08(4)(e)1.(i). Fill in Alternative II if the criteria of 335-14-2-.08(4)(e)1.(ii) are used.]

ALTERNATIVE I

1.	Sum of current cost estimates [total of all cost estimates shown in the nine paragraphs above]	$ _____	
2.	Total liabilities [if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]	$ _____	
3.	Tangible net worth	$ _____	
4.	Net worth	$ _____	
5.	Current asset	$ _____	
6.	Current liabilities	$ _____	
7.	Net working capital [line 5 minus line 6]	$ _____	
8.	The sum of net income plus depreciation, depletion, and amortization	$ _____	
9.	Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$ _____	
10.	Is line 3 at least $10 million?	_____ Yes	_____ No
11.	Is line 3 at least 6 times line 1?	_____ Yes	_____ No
12.	Is line 7 at least 6 times line 1?	_____ Yes	_____ No
13.	Are at least 90% of firm's assets located in the U.S.? If not, complete line 14.	_____ Yes	_____ No

14.	Is line 9 at least 6 times line 1?	Yes	No
15.	Tangible net worth [if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line]	Yes	No
16.	Is line 8 divided by line 2 greater than 0.1?	Yes	No
17.	Is line 5 divided by line 6 greater than 1.5?	Yes	No

ALTERNATIVE II

1.	Sum of current cost estimates [total of all cost estimates shown in the eight paragraphs above]	$ _____
2.	Current bond rating of most recent issuance of this firm and name of rating service	$ _____
3.	Date of issuance of bond	$ _____
4.	Date of maturity of bond	$ _____
5.	Tangible net worth [if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line]	$ _____
6.	Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$ _____

7.	Is line 5 at least $10 million?	Yes	No
8.	Is line 5 at least 6 times line 1?	Yes	No
9.	Are at least 90% of the firm's assets located in the U.S.? If not, complete line 10.	Yes	No
10.	Is line 6 at least 6 times line 1?	Yes	No

I hereby certify that the wording of this letter is identical to the wording specified in ADEM Admin. Code 335-14-2-.08(12)(e) as such regulations were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

(Title] _____

[Date] _____

(f) A letter from the chief financial officer, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(f), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Letter From Chief Financial Officer

[Address to the Director, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463].

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under ADEM Admin. Code r. 335-14-2-.08(8) [insert "and costs assured ADEM Admin. Code r. 335-14-2-.08(4)(e)" if applicable] as specified in ADEM Admin. Code r. 335-14-2-.08.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address].

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in ADEM Admin. Code r. 335-14-2-.08: _____

The firm identified above guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-2-.08, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____.

The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"]

accidental occurrences is being demonstrated through the financial test specified ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08: _____

The firm identified above guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____. The firm identified above is [insert one or more: (1) The direct or higher tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and costs assured under ADEM Admin. Code r. 335-14-2-.08(4)(e) or closure or post-closure care costs under ADEM Admin. Code r. 335-14-5-.08(4), 335-14-5-.08(6), 335-14-6-.08(4) or 335-14-6-.08(6), fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA identification number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in ADEM Admin. Code r. 335-14-2-.08. The current cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-2-.08, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____, or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States outside of Alabama, where the U.S. EPA or some designated authority is administering the financial requirements, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ADEM Admin. Code r. 335-14-2-.08. The current cost estimates covered by such a test are shown for each facility: _____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated to the Department through the financial test or any other financial

assurance mechanism specified in ADEM Admin. Code r. 335-14-2-.08. The current cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____.

7. This firm guarantees, through the guarantee specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____].

[Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States outside of Alabama, where the U.S. EPA or some designated authority is administering the financial requirements, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the Department through the financial test or any other financial assurance mechanism specified in ADEM Admin. Code r. 335-14-5-.08 and 335-14-6-.08 or equivalent. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year end financial statements for the latest completed fiscal year, ended [date].

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria specified in 335-14-2-.08(8)(f)1.(i) are used. Fill in Alternative II if the criteria specified in 335-14-2-.08(8)(f)1.(ii) are used.]

ALTERNATIVE I

1.	Amount of annual aggregate liability coverage to be demonstrated	$	_____
2.	Current assets	$	_____
3.	Current liabilities	$	_____
4.	Net working capital [line 2 minus line 3]	$	_____
5.	Tangible net worth	$	_____
6.	If less than 90% of assets are located in the U.S. give total U.S. assets.	$	
7.	Is line 5 at least $10 million?	____ Yes	_____ No
8.	Is line 4 at least 6 times line 1?	____ Yes	_____ No
9.	Is line 5 at least 6 times line 1?	____ Yes	_____ No
10.	Are at least 90% of firm's assets located in the U.S.? If not, complete line 11.	____ Yes	_____ No
11.	Is line 6 at least 6 times line 1?	____ Yes	_____ No

ALTERNATIVE II

1.	Amount of annual aggregate liability coverage to be demonstrated	$	_____
2.	Current bond rating of most recent issuance of this firm and name of rating service	$	_____

_____

3.	Date of issuance of bond	_____	
4.	Date of maturity of bond	_____	
5.	Tangible net worth	$ _____	
6.	Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$ _____	
7.	Is line 5 at least $10 million?	____ Yes	_____ No
8.	Is line 5 at least 6 times line 1?	____ Yes	_____ No
9.	Are at least 90% of the firm's assets located in the U.S.? If not, complete line 10.	____ Yes	_____ No
10.	Is line 6 at least 6 times line 1?	____ Yes	_____ No

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under 335-14-2-.08(4)(e) or closure or post-closure care costs under ADEM Admin. Code r. 335-14-5-.08(4), 335-14-5-.08(6), 335-14-6-.08(4) or 335-14-6-.08(6).]

Part B. Facility Care and Liability Coverage

[Fill in Alternative I if the criteria of 335-14-2-.08(4)(e)1.(i) and 335-14-2-.08(8)(f)1.(i) are used. Fill in Alternative II if the criteria of 335-14-2-.08(4)(e)1.(ii) and 335-14-2-.08(8)(f)1.(ii) are used.]

ALTERNATIVE I

1.	Sum of current cost estimates [total of all cost estimates listed above]	$ _____
2.	Amount of annual aggregate liability coverage to be demonstrated	$ _____
3.	Sum of line 1 and 2	$ _____
4.	Total liabilities (if any portion of your estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6)	$ _____
5.	Tangible net worth	$ _____

			_____
6.	Net worth	$ _____	
7.	Current assets	$ _____	
8.	Current liabilities	$ _____	
9.	Net working capital [line 7 minus line 8]	$ _____	
10.	The sum of net income plus depreciation, depletion, and amortization	$ _____	
11.	Total assets in the U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$ _____	
12.	Is line 5 at least $10 million?	Yes	No
13.	Is line 5 at least 6 times line 3?	Yes	No
14.	Is line 9 at least 6 times line 3?	Yes	No
15.	Are at least 90% of firms assets located in the U.S.? If not, complete line 16.	Yes	No
16.	Is line 11 at least 6 times line 3?	Yes	No
17.	Is line 4 divided by line 6 less than 2.0?	Yes	No
18.	Is line 10 divided by line 4 greater than 0.1?	Yes	No
19.	Is line 7 divided by line 8 greater than 1.5	Yes	No

ALTERNATIVE II

1.	Sum of current cost estimates [total of all cost estimates listed above]	$ _____
2.	Amount of annual aggregate liability coverage to be demonstrated	$ _____
3.	Sum of lines 1 and 2	_____
4.	Current bond rating of most recent issuance and name of rating service	_____
5.	Date of issuance bond	_____

_____

6.	Date of maturity bond		_____
7.	Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line)	$ _____	
8.	Total assets in the U.S. (required only if less than 90% of firm's assets are located in the U.S.)	$ _____	
9.	Is line 7 at least $10 million?	____ Yes	_____ No
10.	Is line 7 at least 6 times line 3?	____ Yes	_____ No
11.	Are at least 90% of the firm's assets located in the U.S.? If not, complete line 12.	____ Yes	_____ No
12.	Is line 8 at least 6 times line 3?	____ Yes	_____ No

I hereby certify that the wording of this letter is identical to the wording specified in ADEM Admin. Code 335-14-2-.08(12)(f) as such rules were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

(Title) _____

[Date] _____

(g)1. A corporate guarantee, as specified in 335-14-2-.08(4)(e), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Corporate Guarantee for Facility Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in

ADEM Admin. Code r. 335-14-5-.08(2)(h) and 335-14-6-.08(2)(h)" to the Alabama Department of Environmental Management.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in ADEM Admin. Code r. 335-14-2-.08(4)(e).

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number (if any issued), name, and address].

3. "Closure plans" as used below refer to the plans maintained as required by ADEM Admin. Code r. 335-14-2-.08 for the care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees that in the event of a determination by the Department that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under ADEM Admin. Code r. 335-14-2-.01(4)(a)24, the guarantor will dispose of any hazardous secondary material as hazardous waste, and close the facility in accordance with closure requirements found in ADEM Admin. Code r.335-14-5 or 335-14-6, as applicable, or establish a trust fund as specified in ADEM Admin. Code r.335-14-2-.08(4)(a) in the name of the owner or operator in the amount of the current cost estimate.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Department and to [owner or operator] that he intends to provide alternate financial assurance as specified in ADEM Admin. Code r. 335-14-2-.08, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the Department by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate financial assurance as specified in of ADEM Admin. Code r. 335-14-5, 335-14-6, or 335-14-2-.08, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification

or alteration of an obligation of the owner or operator pursuant to ADEM Admin. Code r. 335-14-5, 335-14-6, or 335-14-2-.08.

9. Guarantor agrees to remain bound under this guarantee for as long as [owner or operator] must comply with the applicable financial assurance requirements of ADEM Admin. Code r. 335-14-5 and 335-14-6 or the financial assurance condition of ADEM Admin. Code r. 335-14-2-.01(4)(a)24.(vi) for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]: Guarantor may terminate this guarantee by sending notice by certified mail to the Department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the Department approves, alternate coverage complying with ADEM Admin. Code r.335-14-2-.08(4).

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Department and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in ADEM Admin. Code r. 335-14-5, 335-14-6, or 335-14-2-.08, as applicable, and obtain written approval of such assurance from the Department within 90 days after a notice of cancellation by the guarantor is received by the Department from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the Department or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of ADEM Admin. Code r. 335-14-5, 335-14-6, or 335-14-2-.08.

I hereby certify that the wording of this guarantee is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(g)1. as such regulations were constituted on the date first above written.

Effective date: _____

[Name of guarantor] _____

[Authorized signature for guarantor] _____

[Name of person signing] _____

[Title of person signing] _____

Signature of witness or notary: _____

2. A guarantee, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(g), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of _____-" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in ADEM Admin. Code r. 335-14-1-.02", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in ADEM Admin. Code r. 335-14-2-.08(8)(g).

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:

(A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Department and to [owner or operator] that he intends to provide alternate liability coverage as specified in

ADEM Admin. Code r. 335-14-2-.08(8), as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the Department by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by the Department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in ADEM Admin. Code r. 335-14-2-.08(8) in the name of [owner or operator], unless [owner or operator] has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by ADEM Admin. Code r. 335-14-2-.08(8), provided that such modification shall become effective only if the Department does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of ADEM Admin. Code r. 335-14-2-.08(8) for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

9. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

10. Guarantor may terminate this guarantee by sending notice by certified mail to the Department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the Department approves, alternate liability coverage complying with 335-14-2-.08(8).

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Department and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $_____.

[Signatures] _____

Principal _____

(Notary) Date _____

[Signatures] _____

Claimant(s) _____

(Notary) Date _____

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(g)2. as such regulations were constituted on the date shown immediately below.

Effective date: _____

[Name of guarantor] _____

[Authorized signature for guarantor] _____

[Name of person signing] _____

[Title of person signing] _____

Signature of witness or notary: _____

(h) A hazardous waste facility liability endorsement as required by ADEM Admin. Code r. 335-14-2-.08(8) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under ADEM Admin. Code r. 335-14-2-.08(8). The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in ADEM Admin. Code r. 335-14-2-.08(8)(f).

(c) Whenever requested by the Department, the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Department.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department. Attached to and forming part of policy No. —— issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to

[name of insured] of [address] this _____ day of _____, 20__. The effective date of said policy is _____ day of _____, 20__.

I hereby certify that the wording of this endorsement is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(h) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(i) A certificate of liability insurance as required in ADEM Admin. Code r. 335-14-2-.08(8) must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Hazardous Secondary Material Reclamation/ Intermediate Facility Certificate of Liability Insurance

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under ADEM Admin. Code r. 335-14-5, 335-14-6, and the financial assurance condition of ADEM Admin. Code r. 335-14-2-.01(4)(a)24.(vi)(VI). The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that

amount of any deductible for which coverage is demonstrated as specified in ADEM Admin. Code r. 335-14-2-.08(8).

(c) Whenever requested by the Department, the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Department.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department. I hereby certify that the wording of this instrument is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(j) A letter of credit, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(h), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Name and Address of Issuing Institution _____

Regional Administrator(s) _____

Region(s) _____

U.S. Environmental Protection Agency _____

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____----- in the favor of [”any and all third-party liability claimants” or insert name of trustee of the standby trust fund], at the request and for the account of [owner or operator’s name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $_____----- per occurrence and the annual aggregate amount of [in words] U.S. dollars $_____—, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars

$_____----- per occurrence, and the annual aggregate amount of [in words] U.S. dollars $_____-----, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. _____ ----, and [insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties [insert principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's] facility should be paid in the amount of $[ ]. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures] _____

Grantor _____

[Signatures] _____

Claimant(s) _____

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.]

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Alabama Department of Environmental Management, and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(j) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(k) A surety bond, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(i), must be worded as follows: except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Payment Bond

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], Principal, incorporated in [Insert State of incorporation] of [Insert city and State of principal place of business] and [Insert name and address of surety company(ies)], Surety Company(ies), of [Insert surety(ies) place of business].

EPA Identification Number (if any issued), name, and address for each facility guaranteed by this bond: _____

	Sudden accidental occurrences	Nonsudden accidental
Penal Sum per Occurrence	[insert amount]	[insert amount]
Annual Aggregate	[insert amount]	[insert amount]

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 22-30-16 of the Alabama Hazardous Waste Management and Minimization Act of 1978, as amended.

(2) Rules and regulations of the Alabama Department of Environmental Management Administrative Code, particularly 335-14-5-.08, 335-14-6-.08, and 335-14-2-.08 (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert Principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert Principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Principal]. This exclusion applies:

(A) Whether [insert Principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Principal];

(2) Premises that are sold, given away or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Principal];

(4) Personal property in the care, custody or control of [insert Principal];

(5) That particular part of real property on which [insert Principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert Principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except

that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $[ ].

[Signature]

Principal

[Notary] Date

[Signature(s)]

Claimant(s)

[Notary] Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Department forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Alabama Department of Environmental Management, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Department, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Alabama Department of Environmental Management.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(k), as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]

State of incorporation: _____

Liability Limit: $ _____

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: $ _____

(l) A trust agreement, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(j), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership,"

"association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "trustee."

Whereas, the Alabama Department of Environmental Management (the "Department") has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein. Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____-[up to $1 million] per occurrence and _____ [up to $2 million] annual aggregate for sudden accidental occurrences and _____ [up to $3 million] per occurrence and _____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor]. This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility or group of facilities should be paid in the amount of $[_____].

[Signatures]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a–1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in

connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to

act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the Department.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor. The Department will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of

this Agreement is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(l) as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in ADEM Admin. Code r. 335-14-2-.08(8)(j).

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

_____

[Signature of Notary Public]

(m)1. A standby trust agreement, as specified in ADEM Admin. Code r. 335-14-2-.08(8)(h), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "trustee." Whereas the Alabama Department of Environmental Management (the "Department,"

has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein. Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____-[up to $1 million] per occurrence and _____-[up to $2 million] annual aggregate for sudden accidental occurrences and _____-[up to $3 million] per occurrence and _____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned by [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except

that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility should be paid in the amount of $[_____]

[Signature] _____

Grantor _____

[Signatures] _____

Claimant(s) _____

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of ADEM Admin. Code r. 335-14-2-.08(12)(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii)The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a–1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in

connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust

administration expenses, shall be paid to the Grantor. The Department will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Alabama.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in ADEM Admin. Code r. 335-14-2-.08(12)(m) as such regulations were constituted on the date first above written.

_____

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

_____

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgement which must accompany the trust agreement for a standby trust fund as specified in ADEM Admin. Code r. 335-14-2-.08(8)(h). State requirements may differ on the proper content of this acknowledgement.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

_____

[Signature of Notary Public]

Authors: Bradley N. Curvin; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11
History: April 8, 2016; **Amended:** Effective: March 31, 2017; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019; **Amended:** Filed: February 28, 2020**;** Effective: April 13, 2020; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-2-.09 Use and Management of Containers

(1) Applicability

This subpart applies to hazardous secondary materials excluded under the remanufacturing exclusion at 335-14-2-.01(4)(a)27. and stored in containers.

(2) Condition of containers

If a container holding hazardous secondary material is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the hazardous secondary material must be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of this part.

(3) Compatibility of hazardous secondary materials with containers.

The container must be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

(4) Management of containers

(a) A container holding hazardous secondary material must always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.

(b) A container holding hazardous secondary material must not be opened, handled, or stored in a manner which may rupture the container of cause it to leak.

(5) **[Reserved].**

(6) Containment

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section.

(b) A containment system must be designed and operated as follows:

1. A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

2. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

3. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.

4. Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) of this section to contain any run-on which might enter the system; and

5. Spilled or leaked material and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

(7) Special requirements for ignitable or reactive hazardous secondary material.

Containers holding ignitable or reactive hazardous secondary material must be located at least 15 meters (50 feet) from the facility's property line.

(8) Special requirements for incompatible materials.

(a) Incompatible materials must not be placed in the same container.

(b) Hazardous secondary material must not be placed in an unwashed container that previously held an incompatible material.

(c) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

(9) **[Reserved].**

(10) Air emission standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a container in accordance with the applicable requirements of 335-14-2-.27, 335-14-2-.28, and 335-14-2-.29.

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335-14-2-.10 Tank Systems

(1) Applicability

(a) The requirements of this subpart apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion at 335-14-2-.01(4)(a)27.

(b) Tank systems, including sumps, as defined in 335-14-1-.02(1), that serve as part of a secondary containment system to collect or contain releases of hazardous secondary materials are exempted from the requirements in 335-14-2-.10(4)(a).

(2) Assessment of existing tank system's integrity.

(a) Tank systems must meet the secondary containment requirements of 335-14-2-.10(4), or the remanufacturer or other person that handles the hazardous secondary material must determine that the tank system is not leaking or is unfit for use. Except as provided in paragraph (c) of this section, a written assessment reviewed and certified by a qualified Professional Engineer must be kept on file at the remanufacturer’s facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.

(b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the material(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

1. Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

2. Hazardous characteristics of the material(s) that have been and will be handled;

3. Existing corrosion protection measures;

4. Documented age of the tank system, if available (otherwise, an estimate of the age); and

5. Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer that addresses cracks, leaks, corrosion, and erosion.

[**Note:** The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.]

(c) If, as a result of the assessment conducted in accordance with paragraph (a) of this section, a tank system is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of 335-14-2-.10(7).

(3) **[Reserved].**

(4) Containment and detection of releases.

(a) Secondary containment systems must be:

1. Designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

[**Note:** If the collected material is a hazardous waste under 335-14-2, it is subject to management as a hazardous waste in accordance with all applicable requirements of 335-14-3 through 335-14-6, 335-14-7 and 335-14-9. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.]

(b) To meet the requirements of paragraph (a) of this section, secondary containment systems must be at a minimum:

1. Constructed of or lined with materials that are compatible with the materials(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

2. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

3. Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time; and

4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Secondary containment for tanks must include one or more of the following devices:

1. A liner (external to the tank);

2. A vault; or

3. A double-walled tank.

(d) In addition to the requirements of 335-14-2-.10(4)(a), (b), and (c), secondary containment systems must satisfy the following requirements:

1. External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material

is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the material).

2. Vault systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints (if any);

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3. Double-walled tanks must be:

(i) Designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.

[**Note:** The provisions outlined in the Steel Tank Institute's (STI) “Standard for Dual Wall Underground Steel Storage Tanks” may be used as guidelines for aspects of the design of underground steel double-walled tanks.]

(e) **[Reserved].**

(f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of 335-14-2-.10(4)(a) and (b) of this section except for:

1. Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(5) General operating requirements

(a) Hazardous secondary materials or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

1. Spill prevention controls (e.g., check valves, dry disconnect couplings);

2. Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

3. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material must comply with the requirements of 335-14-2-.10(7) if a leak or spill occurs in the tank system.

(6) **[Reserved].**

(7) Response to leaks or spills and disposition of leaking or unfit-for-use tank systems. A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material must satisfy the following requirements:

(a) *Cessation of use; prevent flow or addition of materials.* The remanufacturer or other person that stores or treats the hazardous secondary material must immediately stop the flow of hazardous secondary material into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) *Removal of material from tank system or secondary containment system.*

1. If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material must, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.

2. If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) *Containment of visible releases to the environment.* The remanufacturer or other person that stores or treats the hazardous secondary material must immediately conduct a visual inspection of the release and, based upon that inspection:

1. Prevent further migration of the leak or spill to soils or surface water; and

2. Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) *Notifications, reports.*

1. Any release to the environment, except as provided in 335-14-2-.10(7)(d)2., must be reported to the Department within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.

2. A leak or spill of hazardous secondary material is exempted from the requirements of this paragraph if it is:

(i) Less than or equal to a quantity of 1 pound, and

(ii) Immediately contained and cleaned up.

3. Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Department:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are

not available within 30 days, these data must be submitted to the Department as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) *Provision of secondary containment, repair, or closure.*

1. Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements of 335-14-2-.10(7)(e)2. through 4., the tank system must cease to operate under the remanufacturing exclusion at 335-14-2-.01(4)(a)27.

2. If the cause of the release was a spill that has not damaged the integrity of the system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the system to service as soon as the released material is removed and repairs, if necessary, are made.

3. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

4. If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of 335-14-2-.10(4) before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of paragraph (f) of this section are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with 335-14-2-.10(4) prior to being returned to use.

(f) *Certification of major repairs.* If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with paragraph (e) of this section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous secondary materials without release for the intended life of the system. This certification must be kept on file at the facility and maintained until closure of the facility.

[**Note:** The Department may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under RCRA section 7003(a) requiring corrective action or such other response as deemed necessary to protect human health or the environment.]

[**Note:** 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.]

(8) Termination of remanufacturing exclusion. Hazardous secondary material stored in units more than 90 days after the unit ceases to operate under the remanufacturing exclusion at 335-14-2-.01(4)(a)27 or otherwise ceases to be operated for manufacturing, or for storage of a product or a raw material, then becomes subject to regulation as hazardous waste under 335-14-2 through 9, as applicable.

(9) Special requirements for ignitable or reactive materials.

(a) Ignitable or reactive material must not be placed in tank systems, unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.

(b) The remanufacturer or other person that stores or treats hazardous secondary material which is ignitable or reactive must store or treat the hazardous secondary material in a tank that is in compliance with the requirements for the maintenance of protective distances between the material management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2–1 through 2–6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981).

(10) Special requirements for incompatible materials.

(a) Incompatible materials must not be placed in the same tank system.

(b) Hazardous secondary material must not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

(11) Air emission standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a tank in accordance with the applicable requirements of subparts AA, BB, and CC of this part.

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335-14-2-.11 [Reserved].

335-14-2-.12 [Reserved].

335-14-2-.13 Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials

(1) Applicability. The requirements of this subpart apply to those areas of an entity managing hazardous secondary materials excluded under 335-14-2-.01(4)(a)23. and/or 335-14-2-.01(4)(a)24. where hazardous secondary materials are generated or accumulated on site.

(a) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d), that accumulates 6000kg or less of hazardous secondary material at any time must comply with 335-14-2-.13(11) and 335-14-2-.13(12).

(b) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) that accumulates more than 6000 kg of hazardous secondary material at any time must comply with 335-14-2-.13(11) and 335-14-2-.13(21).

(2) through (10) **[Reserved].**

(11) Preparedness and prevention

(a) Maintenance and operation of facility. Facilities generating or accumulating hazardous secondary material must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water which could threaten human health or the environment.

(b) Required equipment. All facilities generating or accumulating hazardous secondary material must be equipped with the following, *unless* none of the hazards posed by hazardous secondary material handled at the facility could require a particular kind of equipment specified below:

1. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

2. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

3. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

4. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(c) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and

decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(d) Access to communications or alarm system.

1. Whenever hazardous secondary material is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under 335-14-2-.13(11)(b).

2. If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under 335-14-2-.13(11)(b).

(e) Required aisle space. The hazardous secondary material generator or intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(f) Arrangements with local authorities.

1. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(i) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(ii) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(iii) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(iv) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

2. Where state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) must document the refusal in the operating record.

(12) Emergency procedures for facilities generating or accumulating 6000kg or less of hazardous secondary material. A generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) that generates or accumulates 6000kg or less of hazardous secondary material must comply with the following requirements:

(a) At all times there must be at least one employee either on the premises or on call (*i.e.,* available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph (d) of this section. This employee is the emergency coordinator.

(b) The generator or intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) must post the following information next to the telephone:

1. The name and telephone number of the emergency coordinator;

2. Location of fire extinguishers and spill control material, and, if present, fire alarm; and

3. The telephone number of the fire department, unless the facility has a direct alarm.

(c) The generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(d) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:

1. In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

2. In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;

3. In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility operating under a verified recycler variance under

335-14-1-.03(11)(d) must immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include the following information:

(i) The name, address, and U.S. EPA Identification Number of the facility;

(ii) Date, time, and type of incident (e.g., spill or fire);

(iii) Quantity and type of hazardous waste involved in the incident;

(iv) Extent of injuries, if any; and

(v) Estimated quantity and disposition of recovered materials, if any.

(13) through (20) **[Reserved].**

(21) Contingency planning and emergency procedures for facilities generating or accumulating more than 6000kg of hazardous secondary material.
A generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) that generates or accumulates more than 6000kg of hazardous secondary material must comply with the following requirements:

(a) Purpose and implementation of contingency plan.

1. Each generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) that accumulates more than 6000kg of hazardous secondary material must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

2. The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents which could threaten human health or the environment.

(b) Content of contingency plan.

1. The contingency plan must describe the actions facility personnel must take to comply with paragraphs (a) and (f) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

2. If the generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) accumulating more than 6000kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, or some other emergency or contingency plan, he need only amend that plan to incorporate

hazardous waste management provisions that are sufficient to comply with the requirements of this part. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under 335-14-1-.03(11)(d) may develop one contingency plan which meets all regulatory requirements. EPA recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

3. The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to 335-14-2-.13(11)(f).

4. The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see paragraph (e) of this section), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

5. The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

6. The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(c) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:

1. Maintained at the facility; and

2. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

1. Applicable regulations are revised;

2. The plan fails in an emergency;

3. The facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential

for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;

4. The list of emergency coordinators changes; or

5. The list of emergency equipment changes.

(e) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in paragraph (f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary material(s) handled by the facility, and type and complexity of the facility.

(f) Emergency procedures.

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(ii) Notify appropriate State or local agencies with designated response roles if their help is needed.

2. Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

3. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

4. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be

available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(I) Name and telephone number of reporter;

(II) Name and address of facility;

(III) Time and type of incident (e.g., release, fire);

(IV) Name and quantity of material(s) involved, to the extent known;

(V) The extent of injuries, if any; and

(VI) The possible hazards to human health, or the environment, outside the facility.

5. During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

6. If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

7. Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with 335-14-2-.01(3)(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 335-14-3, 335-14-4, and 335-14-6.

8. The emergency coordinator must ensure that, in the affected area(s) of the facility:

(i) No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

9. The hazardous secondary material generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Department. The report must include:

(i) Name, address, and telephone number of the hazardous secondary material generator;

(ii) Name, address, and telephone number of the facility;

(iii) Date, time, and type of incident (e.g., fire, explosion);

(iv) Name and quantity of material(s) involved;

(v) The extent of injuries, if any;

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) Estimated quantity and disposition of recovered material that resulted from the incident.

(g) Personnel training. All employees must be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

Author: Bradley N. Curvin; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§ 22-30-11.
History: April 8, 2016. **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-2-.14 through 335-14-2-.26 [Reserved].

335-14-2-.27 Subpart AA – Air Emission Standards for Process Vents.

The Environmental Protection Agency Regulations set forth in 40 CFR, Part 261, Subpart AA (as published by EPA on January 13, 2015), are incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110-2059.

(1) § 261.1030 Applicability (as published by EPA on January 13, 2015).

(2) § 261.1031 Definitions (as published by EPA on January 13, 2015).

(3) § 261.1032 Standards: Process vents (as published by EPA on January 13, 2015).

(4) § 261.1033 Standards: Closed-vent systems and control devices (as published by EPA on January 13, 2015).

(5) § 261.1034 Test methods and procedures (as published by EPA on January 13, 2015).

(6) § 261.1035 Recordkeeping requirements (as published by EPA on January 13, 2015).

(7) through (20) §§ 261.1036 - 214.1049 **[Reserved]**.

Author: Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11.
History: April 8, 2016; March 31, 2017.

335-14-2-.28 Subpart BB - Air Emission Standards for Equipment Leaks.

The Environmental Protection Agency Regulations, as set forth in 40 CFR, Part 261, Subpart BB (as published by EPA on January 13, 2015), are incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110-2400.

(1) § 261.1050 Applicability (as published by EPA on January 13, 2015).

(2) § 261.1051 Definitions (as published by EPA on January 13, 2015).

(3) § 261.1052 Standards: Pumps in light liquid service (as published by EPA on January 13, 2015).

(4) § 261.1053 Standards: Compressors (as published by EPA on January 13, 2015).

(5) § 261.1054 Standards: Pressure relief devices in gas/vapor service (as published by EPA on January 13, 2015).

(6) § 261.1055 Standards: Sampling connecting systems (as published by EPA on January 13, 2015).

(7) § 261.1056 Standards: Open-ended valves or lines (as published by EPA on January 13, 2015).

(8) § 261.1057 Standards: Valves in gas/vapor service or in light liquid service (as published by EPA on January 13, 2015).

(9) § 261.1058 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors (as published by EPA on January 13, 2015).

(10) § 261.1059 Standards: Delay of repair (as published by EPA on January 13, 2015).

(11) § 261.1060 Standards: Closed-vent systems and control devices (as published by EPA on January 13, 2015).

(12) § 261.1061 Alternative standards for valves in gas/vapor service or in light liquid service: percentage of valves allowed to leak (as published by EPA on January 13, 2015).

(13) § 261.1062 Alternative standards for valves in gas/vapor service or in light liquid service: skip period leak detection and repair (as published by EPA on January 13, 2015).

(14) § 261.1063 Test methods and procedures (as published by EPA on January 13, 2015).

(15) § 261.1064 Recordkeeping requirements (as published by EPA on January 13, 2015).

(16) through (31) **[Reserved]**.

Author: Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11.
History: April 8, 2016; March 31, 2017.

335-14-2-.29 Subpart CC - Air Emission Standards for Tanks, Surface Impoundments, and Containers.

The Environmental Protection Agency Regulations, as set forth in 40 CFR, Part 261, Subpart CC (as published by EPA on January 13, 2015), are incorporated herein by reference.

In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 261, Subpart CC, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern. Any provision of 40 CFR Part 261, Subpart CC, which is inconsistent with the provisions of ADEM Administrative Code, Division 14, is not incorporated herein by reference. The materials incorporated by reference are

available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110-2400.

(1) § 261.1080 Applicability (as published by EPA on January 13, 2015).

(2) § 261.1081 Definitions (as published by EPA on January 13, 2015).

(3) § 261.1082 Standards: General (as published by EPA on January 13, 2015).

(4) § 261.1083 Material determination procedures (as published by EPA on January 13, 2015).

(5) § 261.1084 Standards: Tanks (as published by EPA on January 13, 2015).

(6) **[Reserved].**

(7) § 261.1086 Standards: Containers (as published by EPA on January 13, 2015).

(8) § 261.1087 Standards: Closed-vent systems and control devices (as published by EPA on January 13, 2015).

(9) § 261.1088 Inspection and monitoring requirements (as published by EPA on January 13, 2015).

(10) § 261.1089 Recordkeeping requirements (as published by EPA on January 13, 2015).

(11) **[Reserved]**.

Author: Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama, 1975, §§ 22-30-11.
History: April 8, 2016; March 31, 2017.

335-14-2 APPENDIX I - Representative Sampling Methods.

[**NOTE:** The Representative Sampling Methods published by the Environmental Protection Agency as set forth in 40 CFR, Part 261, Appendix I (as published by EPA on May 19, 1980 and amended June 14, 2005) are incorporated herein by reference.]

The lists of materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110-2059.

Authors: Stephen C. Maurer, C. Edwin Johnston, Bradley N. Curvin, Vernon H. Crockett

Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
History: November 19, 1980. **Amended:** August 24, 1989, January 25, 1992; January 1, 1993. **Amended:** Filed: November 30, 1994; Effective: January 5, 1995. **Amended:** Filed: December 8, 1995; Effective: January 12, 1996. **Amended:** Filed: March 9, 2001; Effective: April 13, 2001. **Amended:** Filed: February 24, 2005; Effective: March 31, 2005. **Amended:** Filed: February 28, 2006; Effective: April 4, 2006; **Amended:** Effective: April 7, 2017.

335-14-2 APPENDIX II – [Reserved].

335-14-2 APPENDIX III – [Reserved].

335-14-2 APPENDIX IV - [Reserved For Radioactive Waste Test Methods].

335-14-2 APPENDIX V - [Reserved For Infectious Waste Treatment Specifications].

335-14-2 APPENDIX VI - [Reserved For Etiologic Agents].

335-14-2 APPENDIX VII - Basis For Listing Hazardous Waste.

EPA Hazardous Waste No.	Hazardous Constituents for Which Listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).

F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, penta-chlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachloro-dibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene indeno(1,2,3-cd)pyrene, napthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 335-14-9-.04(4), Table CCW.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenol, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead.
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylenechloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylenechloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis (chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.

K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.

K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, napthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobernzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K088	Cyanide (complexes)
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).

K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd) pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd) pyrene.
K143	Benzene, benz(a)anthracene, benzo(b) fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a) pyrene, benzo(b)fluoranthene, benzo(k) fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a) pyrene, dibenz(a,h)anthrancene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a),pyrene, benzo(b) fluoranthene, benzo(k) fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b) fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd) pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.

K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)Fluoranthene, 3-methylcholanthrene, 7,12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.
K172	Benzene, arsenic.
K174	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,6,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin, OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenzofurans).
K175	Mercury
K176	Arsenic, Lead
K177	Antimony
K178	Thallium
K181	Aniline, 0-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine

N.A.--Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

Authors: Stephen C. Maurer; C. Edwin Johnston; Bradley N. Curvin; Theresa A. Maines
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; January 25, 1992; January 5, 1995; January 12, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 15, 2002; April 17, 2003; April 4, 2006; April 3, 2007; March 31, 2011.

335-14-2 Appendix VIII - Hazardous Consituents.

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
A2213	Ethanimidothioic acid, 2-(dime- thylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminefluarone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-8	P003
Acrylamide	2-Propenamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio) -, O-[(methylamino)carbonyl] oxime	116-06-3	P070
Aldicarb sulfone	Propanal, 2-methyl-2-(methyl- sulfonyl)-, O-[(methylamino)- carbonyl] oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4 a,5,8,8a-hexahydro-, (1alpha, 4alpha,4abeta,5alpha,8alpha, 8abeta)-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propane, 3-chloro	107-05-1	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxa zolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	P119
Aniline	Benzenamine	62-53-3	U012
o-Anisidine (2-methoxyaniline)	Benzenamine, 2-Methoxy-	90-04-0	

Antimony	Same	7440-36-0	
Antimony compounds, N.O.S.[1]			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1 -methylethyl ester	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S.[1]			
Arsenic acid	Arsenic acid H_3AsO_4	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As_2O_5	1303-28-2	P011
Arsenic trioxide	Arsenic oxide As_2O_3	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimeth yl	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015
Barban	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S.[1]			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bediocarb phenol	1,3-Benzodioxol-4-ol, 2,2-dimethyl-dimethyl-	22961-82-6	U364
Benomyl	Carbamic acid, [1-[(butylamino) carbonyl]-1H-benzimidazol-2- yl]-, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U019
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4 1-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo[k]fluoranthene	Same	207-08-9	

Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium compounds, N.O.S.[1]			
Beryllium powder	Same	7440-41-7	P015
Bis(pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1'-(tetrathiodicarbon- othioyl)-bis-	120-54-7	
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Butylate	Carbamothioic acid, bis (2-methylpropyl)-, S-ethyl ester	2008-41-5	
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.[1]			
Calcium chromate	Chromic acid H_2CrO_4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbaryl	1-Naphthalenol, methylcarbamate	63-25-2	U279
Carbendazim	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	U372
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate	1563-66-2	P127
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	U367
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211

Carbosulfan	Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	55285-14-8	P189
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a, 4,7,7a-hexahydro-	57-74-9	U036
Chlordane (alpha and gamma isomers)			U036
Chlorinated benzenes, N.O.S.[1]			
Chlorinated ethane, N.O.S.[1]			
Chlorinated fluorocarbons, N.O.S.[1]			
Chlorinated naphthalene, N.O.S.[1]			
Chlorinated phenol, N.O.S.[1]			
Chlornaphazin	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.[1]			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047

o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(o-Chlorophenyl)- thio urea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.[1]			
Chrysene	Same	218-01-9	U050
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithi- ocarbama te	Copper, bis (dimethylcarbamodi- thioato-S,S')-	137-29-1	
Creosote	Same		U051
p-Cresidine	2-Methoxy-5-methylbenzenamine	120-71-8	
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	P202
Cyanides (soluble salts and complexes) N.O.S.[1]			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl	14901-08-7	
Cycloate	Carbamothioic acid, cyclohexyl- ethyl-, S-ethyl ester	1134-23-2	
2-Cyclohexyl-4,6-dinitro phenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-ami ne, N,N-bis(2-chloroethyl)- tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240

2,4-D, salts, esters			U240
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830-81-3	U059
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	
DDD	Benzene, 1,1'-(2,2-dichloro- ethylidene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-(dichloroethenyli- dene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloro- ethylidene)bis[4-chloro-	50-29-3	U061
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]- carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def] chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.[1]	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074

Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.[1]	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichlrol-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxy ethane	Ethane, 1,1'-[methylenebis- (oxy)]bis[2-chl oro-	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.[1]	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.[1]	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.[1]	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b] oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3, 6, 6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta, 6beta,6aalpha,7beta,7aalpha)-	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	U395
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	U028
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087

Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088
O,O-Diethyl O-pyra- zinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	P040
Diethylstilbesterol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis -, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophos- phate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	P044
3,3'-Dimethoxybenzi- di ne	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091
p-Dimethylaminoazo- be nzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
2,4-Dimethylaniline (2,4-xylidine)	Benzenamine, 2,4-dimethyl-	95-68-1	
7,12-Dimethylbenz[a]- a nthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
alpha,alpha-Dimethyl- p henethylamine	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dimetilan	Carbamic acid, dimethyl-, 1-[(dimethylamino) carbonyl]-5-methyl-1H-pyrazol-3-y l ester	644-64-4	P191

Dinitrobenzene, N.O.S.[1]	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dinitro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020
Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U017
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	
Disulfoton	Phosphorodithioic acid, O,O-diethylS-[2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$	541-53-7	P049
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-,3-oxide	115-29-7	P050
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	

Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101
Ethyl ziram	Zinc, bis(diethylcarbamodithioato-S,S')-	14324-55-1	
Ethylenebisdithiocar- ba mic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarba mic acid, salts and esters			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	U077
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phe nyl]O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, tris (dimethylcarbamo- dithioato-S,S')-	14484-64-1	
Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)carbonyl] oxy]phenyl]-, monohydrochloride	23422-53-9	P198
Formic acid	Same	64-18-6	U123

Formparanate	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]-	17702-57-7	P197
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	U126
Halomethanes, N.O.S.[1]			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	P059
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-hepta- chloro-1a,1b,5, 5a,6,6a-hexa-hydro-,(1aalpha,1bbeta,2alpha,- 5alpha,5abeta,6beta, 6aalpha)-	1024-57-3	
Heptachlor epoxide (alpha, beta, and gamma isomers)			
Heptachlorodibenzo- furans			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclopent- adiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			
Hexachlorodibenzo- furans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyl tetraphos- phate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134

Hydrogen sulfide	Hydrogen sulfide H2S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a, 5,8,8a-hexahydro-, (1alpha, 4alpha,4abeta,5beta,8beta, 8abeta)-	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyr azol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pe ntalen-2-one,1,1a,3,3a,4,5,5,5a,5 b,6-decachlorooctahydro-	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-,7-[[2,3 -dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobuto xy]methyl]-2,3,5,7a-tetrahydro-1H -pyrrolizin-1-yl ester,[1S-[1alpha(Z),7(2S*,- 3R*),7 aalpha]]-	303-34-1	
Lead	Same	7439-92-1	
Lead compounds, N.O.S.[1]			
Lead acetate	Acetic acid, lead(2+) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead(2+) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O) tetrahy- droxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha, 3beta, 4alpha,5alpha,6beta)-	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148

Malononitrile	Propanedinitrile	109-77-3	U149
Manganese dimethyldi- thiocarbamate	Manganese, bis (dimethylcarbamodithioato-S,S')-	15339-36-3	P196
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S.[1]			
Mercury fulminate	Fulminic acid, mercury(2+) salt	628-86-4	P065
Metam sodium	Carbamodithioic acid, methyl-, monosodium salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	2032-65-7	P199
Methomyl	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis(2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160

Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methyllactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methane- sulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl, 3-methylphenyl ester	1129-41-5	P190
Mexacarbamate	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2',3':3,4]pyrrolo[1,2-a] indole-4,7-dione,6-amino-8-[[(ami nocarbonyl) oxy]methyl]-1,1a,2,8,8a,8b-hexah ydro-8a-methoxy-5-methyl-,[1aS-(1aalpha, 8beta,8aalpha, 8balpha)]-	50-07-7	U010
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	U163
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	U167
beta-Naphthylamine	2-Naphthalenamine	91-59-8	U168
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S.[1]			
Nickel carbonyl	Nickel carbonyl $Ni(CO)_4$, (T-4)-	13463-39-3	P073

Nickel cyanide	Nickel cyanide $Ni(CN)_2$	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	U169
Nitrogen dioxide	Nitrogen oxide NO_2	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydrochloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.[1]		35576-91-1D	
N-Nitrosodi-n-buty- lamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino) bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethy- lamine	Methanamine, N-methyl-N-nitroso-	62-75-9	P082
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176
N-Nitrosomethyle- thylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylure- thane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvin- ylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	

N-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	930-55-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octachlorodibenzo-p-dio xin (OCDD)	1,2,3,4,6,7,8,9-Octachlorodibenzo -p-dioxin	3268–87–9	
Octachlorodibenzofuran (OCDF)	1,2,3,4,6,7,8,9-Octachlorodi- beno furan	39001–02–0	
Octamethylpyrophospho ramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO_4, (T-4)-	20816-12-0	P087
Oxamyl	Ethanimidithioic acid, 2-(dime- thylamino)-N-[[(methylam ino)- carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphor- othioic acid, O,O-diethyl O-(4-nitro- phenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-di oxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzen e (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
1,2-Phenylenediamine	1,2-Benzenediamine	95-54-5	
1,3-Phenylenediamine	1,3-Benzenediamine	108-45-2	
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093

Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094
Phthalic acid esters, N.O.S.[1]			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-01,1,2,3, 3a,8,8a-hexahydro-1,3a,8-trimethy l-, methylcarbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) -1,2,3,3a,8,8a-hexahydro -1,3a,8-trimethylpyrrolo [2,3-b]indol-5-yl methylcarbamate ester (1:1)	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.[1]			
Potassium cyanide	Potassium cyanide K(CN)	151-50-8	P098
Potassium dimethyldi- thiocarbama te	Carbamodithioic acid, dimethyl, potassium salt	128-03-0	
Potassium n-hydroxymethyl-n-met hyl-dithiocarbamate	Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	
Potassium n-methyldi- thiocarbam ate	Carbamodithioic acid, methyl-monopotassium salt	137-41-7	
Potassium pentachlo- rophenate	Pentachlorophenol, potassium salt	7778-73-6	
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506-61-6	P099
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-pr opynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193

n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102
Propham	Carbamic acid, phenyl-, 1-methylethyl ester	122-42-9	U373
Propoxur	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	U411
Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	51-52-5	
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimet hoxybenzoyl) oxy]-smethyl ester,(3beta,16beta,17alpha, 18beta, 20alpha)-	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.[1]			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS_2	7488-56-4	U205
Selenium, tetrakis (dimethyl-dithiocarbama te)	Carbamodithioic acid, dimethyl-, tetra anhydrosulfide with orthothioselenious acid	144-34-3	
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S.[1]			
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	P106

Sodium dibutyldithio- carbamat e	Carbamodithioic acid, dibutyl-, sodium salt	136-30-1	
Sodium diethyldithio- carbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	
Sodium dimethyldithio- carbama te	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	
Sodium pentachloro- phenate	Pentachlorophenol, sodium salt	131-52-2	
Streptozotocin	D-Glucose, 2-deoxy-2-[[(methyl- nitrosoamino) carbonyl]amino]-	18883-66-4	U206
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	
1,2,4,5-Tetrachlorobenz ene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p-di oxins			
Tetrachlorodibenzofuran s			
Tetrachloroethane, N.O.S.[1]	Ethane, tetrachloro-, N.O.S	25322-20-7	
1,1,1,2-Tetrachloro- eth ane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloro- eth ane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachloro- phe nol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027
2,3,4,6-Tetrachloro-phe nol, potassium salt	Same	53535-27-6	
2,3,4,6-Tetrachloro- phe nol, sodium salt	Same	25567-55-9	

Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetramethylthiuram monosulfide	Bis(dimethylthiocarbamoyl) sulfide	97-74-5	
Tetranitromethane	Methane, tetranitro-	509-14-8	P112
Thallium	Same	7440-28-0	
Thallium compounds, N.O.S.[1]			
Thallic oxide	Thallium oxide Tl_2O_3	1314-32-5	P113
Thallium(I) acetate	Acetic acid, thallium(1+) salt	563-68-8	U214
Thallium(I) carbonate	Carbonic acid, dithallium(1+) salt	6533-73-9	U215
Thallium(I) chloride	Thallium chloride TlCl	7791-12-0	U216
Thallium(I) nitrate	Nitric acid, thallium(1+) salt	10102-45-1	U217
Thallium selenite	Selenious acid, dithallium(1+) salt	12039-52-0	P114
Thallium(I) sulfate	Sulfuric acid, dithallium(1+) salt	7446-18-6	P115
Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]] bis-, dimethyl ester	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[(methyl- amino)carbonyl] oxime	39196-18-4	P045
Thiomethanol	Methanethiol	74-93-1	U153
Thiophanate-methyl	Carbamic acid, [1,2-phyenylenebis (iminocarbonothioyl)]bis-, dimethyl ester	23564-05-8	U409
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116
Thiourea	Same	62-56-6	U219
Thiram	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime	26419-73-8	P185
Toluene	Benzene, methyl-	108-88-3	U220

Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303-17-5	U389
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoro- m ethane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S.[1]		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	U404
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridinyl)- phosp hine sulfide	Aziridine, 1,1',1''-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235

Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]-bis[5-amino-4-hydroxy-, tetrasodium salt	72-57-1	U236
Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V_2O_5	1314-62-1	P120
Vernolate	Carbamothioic acid, dipropyl-, S-propyl ester	1929-77-7	
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-,when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-,when present at concentrations greater than 0.3%	81-81-2	P001
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less	1314-84-7	U249
Ziram	Zinc, bis (dimethylcarbamodi- thioato- S,S')-, (T-4)-	137-30-4	P205

[1] The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

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Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11.
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; January 25, 1992; January 5, 1995; January 12, 1996; March 28, 1997; March 27,

1998; April 2, 1999; April 13, 2001; March 15, 2002; April 4, 2006; April 3, 2007; May 27, 2008; April 3, 2012.

335-14-2 APPENDIX IX - Wastes Excluded Under 335-14-1-.03(2).

TABLE 1 - WASTE EXCLUDED FROM NON-SPECIFIC SOURCES

Site	Waste Description
Alabama Power Company - Barry Steam Plant Bucks, AL ALD082148800	Boiler chemical cleanout wastewater (EPA HW No. D007) that is generated at the Alabama Power Co. – Barry Steam Plant (APC – Barry) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – Barry must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Barry must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the exempted waste, APC – Barry possesses or is otherwise made aware of any data (including, but not limited, to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – Barry must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate

Site	Waste Description
	response necessary to protect human health and the environment. (C) If ADEM determines that the reported information does require Department action, ADEM will notify APC – Barry in writing of the actions necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC – Barry with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC – Barry shall have 30 days from the date of ADEM's notice to present the information. (D) If after 30 days APC – Barry presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.

Alabama Power Company - E.C. Gaston Steam Plant Wilsonville, AL ALD083742858	Boiler chemical cleanout wastewater (EPA HW No. D007) that is generated at the Alabama Power Co. – E.C. Gaston Steam Plant (APC – E. C. Gaston) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – E.C. Gaston must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Gaston must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the exempted waste, APC – E. C. Gaston possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – E. C. Gaston must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

	(C) If ADEM determines that the reported information does require Department action, ADEM will notify APC – E. C. Gaston in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC – E. C. Gaston with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC E.C. Gaston shall have 30 days from the date of ADEM's notice to present the information. (D) If after 30 days APC – E. C. Gaston presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.
Alabama Power Company - Gadsden Steam Plant Gadsden, AL ALD000615542	Boiler chemical cleanout wastewater (EPA HW No. D007) that is generated at the Alabama Power Co. - Gadsden Steam Plant (APC – Gadsden) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – Gadsden must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Gadsden must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the exempted waste, APC - Gadsden possesses or is otherwise made aware of any data

(including but not limited to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – Gadsden must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data.

(B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

(C) If ADEM determines that the reported information does require Department action, ADEM will notify APC - Gadsden in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC - Gadsden with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC - Gadsden shall have 30 days from the date of ADEM's notice to present the information.

(D) If after 30 days APC - Gadsden presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.

Alabama Power Company - Gorgas Steam Plant Parrish, AL ALD000615567	Boiler chemical cleanout wastewater, D007, that is generated at the Alabama Power Company Gorgas Steam Plant (APC – Gorgas) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – Gorgas must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Gorgas must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the exempted waste, APC – Gorgas possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – Gorgas must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

(C) If ADEM determines that the reported information does require Department action, ADEM will notify APC – Gorgas in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC – Gorgas with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC – Gorgas shall have 30 days from the date of ADEM's notice to present the information.

(D) If after 30 days APC – Gorgas presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.

Alabama Power Company - Greene County Steam Plant Demopolis, AL ALD000615609	Boiler chemical cleanout wastewater, D007, that is generated at the Alabama Power Co. – Greene County Steam Plant (APC – Greene Co.) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – Greene County must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Greene must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the exempted waste, APC – Greene Co. possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – Greene Co. must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

	(C) If ADEM determines that the reported information does require Department action, ADEM will notify APC – Greene Co. in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC – Greene Co. with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC – Greene Co. shall have 30 days from the date of ADEM's notice to present the information. (D) If after 30 days APC – Greene Co. presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.

Alabama Power Company - Miller Steam Plant Quinton, AL ALD000615658	Boiler chemical cleanout wastewater, D007, that is generated at the Alabama Power Company - Miller Steam Plant (APC – Miller) facility. The waste will not be subject to regulation as D007 at the point of generation if it is not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the exempted wastewater in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion is effective as of April 8, 2016. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, APC – Miller must verify that the waste contains only trivalent chromium and does not exhibit any other hazardous characteristics by sampling in accordance with 335-14-1-.03(2)(h) during every second boiler clean out event. If at any time the waste is determined to be hazardous, APC – Miller must immediately manage it as a hazardous waste as required by ADEM Admin. Code div. 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language.

(A) If, any time after disposal of the exempted waste, APC – Miller possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the exempted waste at the facility indicating that hexavalent chromium is present in the leachate at a concentration higher than the regulatory limit, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then APC – Miller must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data.

(B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

(C) If ADEM determines that the reported information does require Department action, ADEM will notify APC – Miller in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing APC – Miller with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. APC – Miller shall have 30 days from the date of ADEM's notice to present the information.

(D) If after 30 days APC – Miller presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in ADEM's determination shall become effective immediately, unless the Department provides otherwise.

Ampex Recording Media Corp. Opelika, AL ALD 003 297 116	Solvent recovery residues in the powder or pellet form (EPA Hazardous Waste Nos. F003 and F005) generated from the recovery of spent solvents from the manufacture of tape recording media (generated at a maximum annual rate of 1,000 cubic yards in the powder or pellet form) after August 9, 1993. In order to confirm that the characteristics of the wastes do not change significantly, the facility must, on an annual basis, analyze a representative composite sample of the waste (in its final form) for the constituents listed in 335-14-2-.03(5) using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to 335-14-1-.03(2)(i)16., maintained on-site for a minimum of five years, and made available for inspection upon request by any employee or representative of the EPA or the State of Alabama. Failure to maintain the required records on-site will be considered by the EPA, at its discretion, sufficient basis to revoke the exclusion to the extent directed by the EPA.
Hoechst Celanese Corp. Bucks, AL ALD 056 113 756	Distillation bottoms generated (at a maximum annual rate of 31,500 cubic yards) from the production of sodium hydrosulfite (EPA Hazardous Waste No. F003). This exclusion was published by the EPA on July 17, 1990. This exclusion does not include the waste contained in Hoechst Celanese's on-site surface impoundment.

Honda Manufacturing of Alabama, LLC Lincoln, AL ALR000016261	Wastewater treatment sludge, (EPA Hazardous Waste NO. F019) that is generated at the Honda Manufacturing of Alabama, LLC (Honda) facility. The sludge will not be subject to the F019 listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the delisted wastewater treatment sludge in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, for incineration, or for disposal in a lined landfill with leachate collection. The exclusion became effective as of December 10, 2007. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be non-hazardous waste, Honda must perform a waste determination as required by 335-14-3-.01(2) on the sludge at least every three years. In addition, the waste must be managed according to all requirements found in 335-14-3. If at any time the waste is determined to be hazardous, Honda must immediately manage the sludge as a hazardous waste as required by Division 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility, and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by ADEM. (3) Reopener Language. (A) If, any time after disposal of the delisted waste, Honda possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste at the facility indicating that any constituent is at a level in the leachate higher than the specified delisting level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then Honda must report such data in writing to ADEM within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, ADEM will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment.

	(C) If ADEM determines that the reported information does require Department action, ADEM will notify Honda in writing of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing Honda with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. Honda shall have 30 days from the date of the ADEM's notice to present the information. (D) If after 30 days Honda presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in the ADEM's determination shall become effective immediately, unless the Department provides otherwise.

ISE Innomotive Systems US, Inc. Tuscaloosa, AL ALR 000 031 773	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated at the ISE Innomotive Systems US, Inc. (ISE) facility. The sludge will not be subject to the F019 classification at the point of generation if the waste is not placed outside on the land prior to being legitimately recycled or disposed of in a permitted hazardous waste landfill or a municipal solid waste landfill permitted by the Department. The exclusion became effective as of May 17, 2012. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, ISE must perform a waste determination as required by 335-14-3-.01(2) on the sludge at least every three years. If at any time the waste is determined to be hazardous, ISE must immediately manage the sludge as a hazardous waste as required by Division 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed offsite; documentation showing when the waste volumes were generated and sent offsite; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained onsite for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Department. (3) Reopener Language. (A) If, any time after disposal of the delisted waste, ISE possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the excluded waste at the facility indicating that any constituent is at a level in the leachate higher than the specified exclusion level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then ISE must report such data in writing to the Department within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Department will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the Department determines that the reported information requires Department action, the Department will notify ISE in writing of the actions necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing ISE with an opportunity to present information as to why the

	proposed departmental action is not necessary or to suggest an alternative action. ISE shall have 30 days from the date of the Department's notice to present the information. (D) If, after 30 days, ISE presents no further information, the Department will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in the Department's determination shall become effective immediately, unless the Department provides otherwise.

Mercedes-Benz U.S. International, Inc. Vance, AL ALR00002246	Wastewater treatment sludge (EPA Hazardous Waste No. F019) generated at the Mercedes-Benz U.S. International, Inc. (MBUSI) facility. The sludge will not be subject to the F019 listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a facility that is licensed, permitted, or otherwise authorized to accept the delisted wastewater treatment sludge in accordance with ADEM Admin. Code Division 335-13, Solid Waste Program for recycling, incineration, or disposal in a lined landfill with leachate collection. The exclusion became effective as of July 20, 2009. (1) Hazardous Waste Determination. To demonstrate that the waste continues to be a non-hazardous waste, MBUSI must perform a waste determination as required by 335-14-3-.01(2) on the sludge at least every three years. In addition, the waste must be managed according to all requirements found in 335-14-3. If at any time the waste is determined to be hazardous, MBUSI must immediately manage the sludge as a hazardous waste as required by Division 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed of offsite; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Department. (3) Reopener Language. (A) If, any time after disposal of the delisted waste, MBUSI possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the delisted waste at the facility indicating that any constituent is at a level in the leachate higher than the specified delisting level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then MBUSI must report such data in writing to the Department within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Department will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If ADEM determines that the reported information does require Department action, ADEM will notify MBUSI in writing

	of the actions the Department believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing MBUSI with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. MBUSI shall have 30 days from the date of the Department's notice to present the information. (D) If after 30 days MBUSI presents no further information, ADEM will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in the Department's determination shall become effective immediately, unless the Department provides otherwise.

Mitsubishi Polycrystalline Silicon America Corporation Theodore, AL ALR 000 008 110	Chlorination reactor dust (EPA Hazardous Waste No. D007) generated at the Mitsubishi Polycrystalline Silicon America Corporation (Mitsubishi) facility. The dust will not be subject to the D007 classification at the point of generation if the wastes are not placed outside on the land prior to being legitimately recycled or disposed in a permitted hazardous waste landfill or a municipal solid waste landfill permitted by the Department. The exclusion became effective as of May 11, 2012. (1) Hazardous Waste Determination. At least once every three years, Mitsubishi must collect and analyze one representative sample of the chlorination reactor dust to demonstrate that the dust continues to meet the conditions of the exclusion. If at any time the waste is determined to not meet the conditions of the exclusion, Mitsubishi must immediately manage the dust as a hazardous waste as required by Division 335-14. (2) Records Documentation. Onsite records documentation must include: hazardous waste determinations, the volume of waste generated and disposed offsite; documentation showing when the waste volumes were generated and sent offsite; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. These documents must be maintained onsite for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Department. (3) Reopener Language. (A) If, any time after disposal of the excluded waste, Mitsubishi possesses or is otherwise made aware of any data (including but not limited to leachate data or groundwater monitoring data) relevant to the excluded waste at the facility indicating that any constituent is at a level in the leachate higher than the specified exclusion level, or is in the groundwater at a concentration higher than the maximum allowable groundwater concentration, then Mitsubishi must report such data in writing to the Department within 10 days of first possessing or being made aware of that data. (B) Based on the information described in paragraph (A) and any other information received from any source, the Department will make a preliminary determination as to whether the reported information requires departmental action to protect human health or the environment. Further action may include suspending or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the Department determines that the reported information does require Department action, the Department will notify Mitsubishi in writing of the actions the Department believes are necessary to protect human health and the

	environment. The notice shall include a statement of the proposed action and a statement providing Mitsubishi with an opportunity to present information as to why the proposed departmental action is not necessary or to suggest an alternative action. Mitsubishi shall have 30 days from the date of the Department's notice to present the information. (D) If, after 30 days, Mitsubishi presents no further information, the Department will issue a final written determination describing the Department's actions that are necessary to protect human health or the environment. Any required action described in the Department's determination shall become effective immediately, unless the Department provides otherwise.
Reynolds Metals Company Sheffield, AL ALD 053 365 160	Dewatered wastewater treatment sludges (EPA Hazardous Waste No. F019) generated (at a maximum annual rate of 3,840 cubic yards) from the chemical conversion coating of aluminum after August 15, 1986.
SONY Magnetic Products of America. Dothan, AL ALD 040 653 636	Hazardous Waste Nos. F003 and F005) generated from the recovery of spent solvents from the manufacture of tape recording media (generated at a maximum annual rate of 200 cubic yards) after March 31, 2004. In order to confirm that the characteristics of the wastes do not change significantly, the facility must, on an annual basis, analyze a representative composite sample of the waste (in its final form) for the constituents listed in 335-14-2-.03(5) using the method specified therein. The annual analytical results, including quality control information, must be compiled, certified according to 335-14-1-.03(2)(i)16., maintained on-site for a minimum of five years, and made available for inspection upon request by any employee or representative of the EPA or the State of Alabama. Failure to maintain the required records on-site will be considered by the Department, at its discretion, sufficient basis to revoke the exclusion to the extent directed by the Alabama Department of Environmental Management.
Universal Oil Products Decatur, AL ALD 053 363 776	Wastewater treatment sludges EPA Hazardous Waste No. F006) generated from electroplating operations and contained in two on-site lagoons on August 15, 1986. This is a one-time exclusion.

TABLE 2 - WASTES EXCLUDED FROM SPECIFIC SOURCES

Site	Waste Description

Akzo Chemicals Inc. (formerly Stauffer Chemical Company) Axis, AL ALD 008 161 176	Brine purification muds generated from their chlor-alkali manufacturing operations (EPA Hazardous Waste No. K071) and disposed of in brine mud pond HWTF: 5 EP-201.
Occidental Chemical Corporation Muscle Shoals Plant Sheffield, AL ALD 004 019 642	Retorted wastewater treatment sludge from the mercury cell process in chlorine production (EPA Hazardous Waste No. K106) after September 19, 1989. This exclusion is conditional upon the submission of data obtained from Occidental's full-scale retort treatment system because Occidental's original data were based on a pilot-scale retort system. To ensure that hazardous constituents are not present in the waste at levels of regulatory concern once the full-scale treatment facility is in operation, Occidental must implement a testing program. All sampling and analyses (including quality control procedures) must be performed using appropriate methods. As applicable to the method-defined parameters of concern, analyse requiring the use of SW-846 methods incorporated by reference in 40 CFR 260.11 must be used without substitution. As applicable, the SW-846 methods might include Methods 0010, 0011, 0020, 0023A, 0030, 0031, 0040, 0050, 0051, 0060, 0061, 1010A, 1020B, 1110A, 1310B, 1311, 1312, 1320, 1330A, 9010C, 9012B, 9040C, 9045D, 9060A, 9070A (uses EPA Method 1664, Rev. A), 9071B, and 9095B. This testing program must meet the following conditions for the exclusion to be valid: (1) Initial Testing - During the first four weeks of full-scale retort operation, Occidental must do the following: (A) Collect representative grab samples from every batch of retorted material and composite the grab samples to produce a weekly composite sample. The weekly composite samples, prior to disposal or recycling, must be analyzed for the EP leachate concentrations of all the EP toxic metals (except mercury), nickel, and cyanide (using distilled water in the cyanide extractions). Occidental must report the analytical test data, including all quality control data, obtained during this initial period no later than 90 days after the treatment of the first full-scale batch. (B) Collect representative grab samples of every batch of retorted material prior to its disposal or recycling and analyze the sample for EP leachate concentration of mercury. Occidental must report the analytical test data, including all quality control data, within 90 days after the treatment of the first full-scale batch. (2) Subsequent Testing - After the first four weeks of full-full-scale retort operation, Occidental must do the following: (A) Continue to sample and test as described in Condition (1)(A). Occidental must compile and store on-site for a

minimum of three years all analytical data and quantity control data. These data must be furnished upon request and made available for inspection by any employee or representative of the EPA or the State of Alabama. These testing requirements shall be terminated by the EPA and the Department when the results of four consecutive weekly composite samples of the petitioned waste, obtained from either the initial testing or subsequent testing show the maximum allowable levels in Condition (3) are not exceeded and the Section Chief, Variances Section, and the Department notifies Occidental that the requirements of this condition have been lifted.

(B) Continue to sample and test for mercury as described in Condition (1)(B). Occidental must compile and store on-on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by any employee or representative of the EPA or the State of Alabama. These testing requirements shall remain in effect until Occidental provides the EPA and the Department with analytical and quality control data for 30 consecutive batches of retorted material, collected as described in Condition (1)(B), demonstrating that the EP leachable levels of mercury are below the maximum allowable level in Condition (3) and the Section Chief, Variances Section, and the Department notifies Occidental that the testing in Condition (2)(B) may be replaced with (2)(C).

(C) [If the conditions in (2)(B) are satisfied, the testing requirements for mercury in (2)(B) shall be replaced with the following condition.] Collect representative grab samples from every batch of retorted material on a daily basis and composite the grab samples to produce a weekly composite sample. Occidental must analyze each weekly composite sample prior to its disposal or recycling for the EP leachate concentration of mercury. Occidental must compile and store on-site for a minimum of three years all analytical data and quality control data. These data must be furnished upon request and made available for inspection by an employee or representative of the EPA or the State of Alabama.

(3) If, under Condition (1) or (2), the EP leachate concentrations for chromium, lead, arsenic, or silver exceed 1.616 mg/l; for barium exceeds 32.3 mg/l; for cadmium or selenium exceed 0.323 mg/l; for mercury exceeds 0.065 mg/l; for nickel exceeds 16.15 mg/l; or for cyanide exceeds 22.61 mg/l, the waste must either be retreated until it meets these levels or managed and disposed of in accordance with Subtitle C of RCRA.

(4) Within one week of system start-up, Occidental must notify the Section Chief, Variances Section (see address below) and the Department when the full-scale retort system is

on-line and waste treatment has begun. All data obtained through Condition (1) must be submitted to the Section Chief, Variances Section, PSPD/OSW (OS-343), U.S. EPA, 401 M Street SW, Washington, DC 20460 and the Director of the Department within the time period specified in Condition (1). At the Section Chief's or the Director's request, Occidental must submit any other analytical data obtained through Condition (2) to the above address, and to the Department within the time period specified by the Section Chief or the Department. Failure to submit the required data will be considered by the Agency or the Department sufficient basis to revoke Occidental's exclusion to the extent directed by the EPA and the Department. All data must be accompanied by the following certification statement:

"Under civil and criminal penalty of law for the making or submission of false or fraudulent statements or representations (pursuant to the applicable provisions of State of Alabama law and the Federal Code which include, but may not be limited to, 18 U.S.C. 6926), I certify that the information contained in or accompanying this document is true, accurate and complete.

As to the (those) identified section(s) of this document for which I cannot personally verify its (their) truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

In the event that any of this information is determined by the EPA or the Department in its sole discretion to be false, inaccurate or incomplete, and upon conveyance of this fact to the company, I recognize and agree that this exclusion of wastes will be void as if it never had effect or to the extent directed by the EPA or the Department and that the company will be liable for any actions taken in contravention of the company's AHWMMA, RCRA and CERCLA obligations premised upon the company's reliance on the void exclusion."

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335-14-2 APPENDIX X - [Reserved].

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM
ADMINISTRATIVE CODE

CHAPTER 335-14-3
STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE AND/OR OTHER WASTE

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335-14-3-.01 General.

(1) Purpose, scope, and applicability.

(a) 335-14-3 establishes standards for generators of hazardous waste as defined in 335-14-1-.02 and generators of other waste destined for disposal at commercial hazardous waste disposal facilities located in the State of Alabama.

1. A person who generates a hazardous waste as defined in 335-14-2 is subject to all the applicable independent requirements listed below:

(i) Independent requirements of a very small quantity generator include those found in 335-14-3-.01(2)(a) through (d) and 335-14-3-.01(3);

(ii) Independent requirements of a small quantity generator include those found in:

a. 335-14-3-.01(2) Hazardous waste determination and recordkeeping;

b. 335-14-3-.01(3) Generator category determination;

c. 335-14-3-.01(8) EPA identification numbers and re-notification for small quantity generators and large quantity generators;

d. 335-14-3-.02 Manifest requirements applicable to small and large quantity generators;

e. 335-14-3-.03 Pre-transport requirements applicable to small and large quantity generators;

f. 335-14-3-.04(1) Recordkeeping;

g. 335-14-3-.04(5) Recordkeeping for small quantity generators; and

h. 335-14-3-.09 Transboundary movements of hazardous waste for recovery or disposal.

(iii) Independent requirements of a large quantity generator include those found in:

a. 335-14-3-.01(2) Hazardous waste determination and recordkeeping;

b. 335-14-3-.01(3) Generator category determination;

c. 335-14-3-.01(8) EPA identification numbers and re-notification for small quantity generators and large quantity generators;

d. 335-14-3-.02 Manifest requirements applicable to small and large quantity generators;

e. 335-14-3-.03 Pre-transport requirements applicable to small and large quantity generators;

f. 335-14-3-.04 Recordkeeping and reporting applicable to small and large quantity generators, except 335-14-3-.04(5); and

g. 335-14-3-.09 Transboundary movements of hazardous waste for recovery or disposal.

2. A generator that accumulates hazardous waste on site is a person that stores hazardous waste; such generator is subject to the applicable requirements of 335-14-3 through 8, unless it is one of the following:

(i) A very small quantity generator that meets the conditions for exemption in 335-14-3-.01(4);

(ii) A small quantity generator that meets the conditions for exemption in 335-14-3-.01(5) and (6); or

(iii) A large quantity generator that meets the conditions for exemption in 335-14-3-.01(5) and (7).

3. A generator shall not transport, offer its hazardous waste for transport, or otherwise cause its hazardous waste to be sent to a facility that is not a designated facility, as defined in 335-14-1-.02, or not otherwise authorized to receive the generator's hazardous waste.

(b) A generator must use 335-14-3-.01(3) to determine which provisions of 335-14-3 are applicable to the generator based on the quantity of hazardous waste generated per calendar month.

(c) [Reserved]

(d) Any person who exports or imports hazardous wastes must comply with 335-14-3-.01(8) and 335-14-3-.09.

(e) Any person who imports hazardous waste into the United States must comply with the standards applicable to generators established in 335-14-3.

(f) A farmer who generates waste pesticides which are hazardous waste and who complies with all the requirements of 335-14-3-.07(1) is not required to comply with other standards in 335-14-3 or in Chapters 335-14-5, 335-14-6, 335-14-8, or 335-14-9 with respect to such pesticides.

(g) [Reserved]

(h) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in 335-14-3.

(i) Persons responding to an explosives or munitions emergency in accordance with 335-14-5-.01(1)(g)8.(i)(IV) or (iv) or 335-14-6-.01(1)(c)11.(i)(IV) or (iv), and 335-14-8-.01(1)(c)3.(i)(IV) or (iii) are not required to comply with the standards of 335-14-3.

(j) [Reserved]

(k) [Reserved]

(l) The laboratories owned by an eligible academic entity that chooses to be subject to the requirements of 335-14-3-.12 are not subject to (for purposes of this paragraph, the terms "laboratory" and "eligible academic entity" shall have the meaning as defined in 335-14-1-.02):

1. The independent requirements of 335-14-3-.01(2) or 335-14-3-.01(5), for large quantity generators and small quantity generators, except as provided in 335-14-3-.12, and

2. The conditions of 335-14-3-.01(4), for very small quantity generators, except as provided in 335-14-3-.12.

[**Note**: A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in Chapters 335-14-5, 335-14-6, 335-14-7, 335-14-8, and 335-14-9.]

(m) All reverse distributors (as defined in 335-14-1-.02) are subject to 335-14-7-.16 for the management of hazardous waste pharmaceuticals in lieu of 335-14-3.

(n) Each healthcare facility (as defined 335-14-1-.02) must determine whether it is subject to 335-14-7-.16 for the management of hazardous waste pharmaceuticals, based on the total hazardous waste it generates per calendar month (including both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste). A healthcare facility that generates more than 100 kg (220 pounds) of hazardous waste per calendar month, or more than 1 kg (2.2 pounds) of acute hazardous waste per calendar month, or more than 100 kg (220 pounds) per calendar month of any residue or contaminated soil, water, or other debris, resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in 335-14-2-.04(2) or 335-14-2-.04(4), is subject to 335-14-7-.16 for the management of hazardous waste pharmaceuticals in lieu of this part. A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to 335-14-3-.01(4) and is not subject to 335-14-7-.16, except for 335-14-7-.16(5) and (7) and the optional provisions of 335-14-7-.16(4).

(o) The generators of other waste destined for disposal at commercial hazardous waste disposal facilities located in the State of Alabama must only comply with 335-14-3-.08.

(2) <u>Hazardous waste determination and recordkeeping</u>. A person who generates a solid waste, as defined in 335-14-2-.01(2), must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable AHWMMA regulations. A hazardous waste determination is made using the following steps:

(a) The hazardous waste determination for each solid waste must be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that

may change the properties of the waste such that the classification of the waste may change.

(b) A person must determine whether the solid waste is excluded from regulation under 335-14-2-.01(4).

(c) If the waste is not excluded under 335-14-2-.01(4), the person must then use knowledge of the waste to determine whether the waste meets any of the listing descriptions under 335-14-2-.04. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information. If the waste is listed, the person may file a petition in accordance with 335-14-1-.03(2) to demonstrate to the Department that the waste from this particular site or operation is not a hazardous waste.

(d) A person must also determine whether the waste exhibits one or more hazardous characteristics as identified in 335-14-2-.03 by following one or both of the following procedures:

1. The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include process knowledge (e.g., information about chemical feedstocks and other inputs to the production process); knowledge of products, by-products, and intermediates produced by the manufacturing process; chemical or physical characterization of wastes; information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents. A test other than a test method set forth in 335-14-2-.03, or an equivalent test method approved under 335-14-1-.03, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, such tests do not, by themselves, provide definitive results. Persons testing their waste must obtain a representative sample of the waste for the testing, as defined in 335-14-1-.02.

2. When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in 335-14-2-.03 or according to an equivalent method approved by the Department under 335-14-1-.03 and in accordance with the following:

(i) Persons testing their waste must obtain a representative sample of the waste for the testing, as defined in 335-14-1-.02.

(ii) Where a test method is specified in 335-14-2-.03, the results of the regulatory test, when properly performed, are definitive for determining the regulatory status of the waste.

(e) If the waste is determined to be hazardous, the generator must refer to Chapters 335-14-2, 335-14-5, 335-14-6, 335-14-7, 335-14-9, and 335-14-11 for possible exclusions or restrictions pertaining to management of his specific waste.

(f) Recordkeeping for small and large quantity generators.

1. A small or large quantity generator must maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste under 335-14-2.

2. Records must be maintained for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. These records must comprise the generator's knowledge of the waste and support the generator's determination in accordance with 335-14-3-.01(2).

3. The records must include, but are not limited to, the following types of information:

(i) The results of any tests, sampling, waste analyses, or other determinations made in accordance with this section;

(ii) Records documenting the tests, sampling, and analytical methods used to demonstrate the validity and relevance of such tests;

(iii) Records consulted in order to determine the process by which the waste was generated, the composition of the waste, and the properties of the waste; and

(iv) Records which explain the knowledge basis for the generator's determination in accordance with 335-14-3-.01(2). The periods of record retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Department.

4. In addition to the records described in 335-14-3-.01(2)(f)1. through 3., a small or large quantity generator must maintain sufficient documentation to demonstrate the quantity of hazardous waste generated each calendar month. This documentation must be retained on-site for at least three years from the date the waste was generated.

(g) Identifying hazardous waste numbers for small and large quantity generators. If the waste is determined to be hazardous, small quantity generators and large quantity generators must identify all applicable EPA hazardous waste numbers (EPA hazardous waste codes) in 335-14-2-.03 and .04. Prior to shipping the waste off site, the generator also must mark its containers with all applicable EPA hazardous waste numbers (EPA hazardous waste codes) according to 335-14-3-.03(3).

(3) Generator Category Determination. A generator must determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month, as defined in 335-14-1-.02.

(a) Generators of either acute hazardous waste or non-acute hazardous waste. A generator who either generates acute hazardous waste or non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing the following:

1. Counting the total amount of hazardous waste generated in the calendar month;

2. Subtracting from the total any amounts of waste exempt from counting as described in 335-14-3-.01(3)(c) and (d); and

3. Determining the resulting generator category for the hazardous waste generated using Table 1of this rule.

(b) Generators of both acute and non-acute hazardous wastes. A generator who generates both acute hazardous waste and non-acute hazardous waste in the same calendar month shall determine its generator category for that month by doing the following:

1. Counting separately the total amount of acute hazardous waste and the total amount of non-acute hazardous waste generated in the calendar month;

2. Subtracting from each total any amounts of waste exempt from counting as described in 335-14-3-.01(3)(c) and (d);

3. Determining separately the resulting generator categories for the quantities of acute and non-acute hazardous waste generated using Table 1; and

4. Comparing the resulting generator categories from 335-14-3-.01(3)(b)3. and applying the more stringent generator category to the accumulation and management of both non-acute hazardous waste and acute hazardous waste generated for that month.

Table 1 Generator Categories Based on Quantity of Waste Generated in a Calendar Month			
Quantity of acute hazardous waste generated in a calendar month	**Quantity of non-acute hazardous waste generated in a calendar month**	**Quantity of residues from a cleanup of acute hazardous waste generated in a calendar month**	**Generator category**
> 1 kg	Any amount	Any amount	Large quantity generator.
Any amount	≥ 1,000 kg	Any amount	Large quantity generator.
Any amount	Any amount	> 100 kg	Large quantity generator.
≤ 1 kg	> 100 kg and < 1,000 kg	≤ 100 kg	Small quantity generator.
≤ 1 kg	≤ 100 kg	≤ 100 kg	Very small quantity generator.

(c) When making the monthly quantity-based determinations required by 335-14-3-.01(3), the generator must include all hazardous waste that it generates, except hazardous waste that:

1. Is exempt from regulation under 335-14-2-.01(4)(c) through (f), 335-14-2-.01(6)(a)3., 335-14-2-.01(7)(a)1., or 335-14-2-.01(8);

2. Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in 335-14-1-.02;

3. Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 335-14-2-.01(6(c)2.;

4. Is used oil managed under the requirements of 335-2-.01(6)(a)4. and 335-14-17;

5. Is spent lead-acid batteries managed under the requirements of 335-14-7-.07;

6. Is universal waste managed under 335-14-2-.01(9) and 335-14-11;

7. Is a hazardous waste that is an unused commercial chemical product (listed in 335-14-2-.04 or exhibiting one or more characteristics in 335-14-2-.03) that

is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to 335-14-3-.12(14); or

8. Is managed as part of an episodic event in compliance with the conditions of 335-14-3-.13.

9. Is a hazardous waste pharmaceutical, as defined in 335-14-1-.02, that is subject to or managed in accordance with 335-14-7-.16 or is a hazardous waste pharmaceutical that is also a Drug Enforcement Administration controlled substance and is conditionally exempt under 335-14-7-.16(6).

(d) In determining the quantity of hazardous waste generated in a calendar month, a generator need not include:

1. Hazardous waste when it is removed from on-site accumulation, so long as the hazardous waste was previously counted once;

2. Hazardous waste generated by on-site treatment (including reclamation) of the generator's hazardous waste, so long as the hazardous waste that is treated was previously counted once; and

3. Hazardous waste spent materials that are generated, reclaimed, and subsequently reused on site, so long as such spent materials have been previously counted once.

(e) Based on the generator category as determined under 335-14-3-.01(3), the generator must meet the applicable independent requirements listed in 335-14-3-.01. A generator's category also determines which of the provisions of 335-14-3-.01(4) through (7) must be met to obtain an exemption from the storage facility permit, interim status, and operating requirements when accumulating hazardous waste.

(f) Mixing hazardous wastes with solid wastes.

1. Very small quantity generator wastes.

(i) Hazardous wastes generated by a very small quantity generator may be mixed with solid wastes. Very small quantity generators may mix a portion or all of its hazardous waste with solid waste and remain subject to 335-14-3-.01(4) even though the resultant mixture exceeds the quantity limits identified in the definition of very small quantity generator under 335-14-1-.02, unless the mixture exhibits one or more of the characteristics of hazardous waste identified in 335-14-2-.03.

(ii) If the resulting mixture exhibits a characteristic of hazardous waste, this resultant mixture is a newly-generated hazardous waste. The very small quantity generator must count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the very small quantity generator calendar month quantity limits identified in the definition of generator categories under 335-14-1-.02. If so, to remain exempt from the permitting, interim status, and operating standards, the very small quantity generator must meet the conditions for exemption applicable to either a small quantity generator

or a large quantity generator. The very small quantity generator must also comply with the applicable independent requirements for either a small quantity generator or a large quantity generator.

(iii) If a very small quantity generator's wastes are mixed with used oil, the mixture is subject to 335-14-17. Any material produced from such a mixture by processing, blending, or other treatment is also subject to the requirements of 335-14-17.

2. Small quantity generator and large quantity generator wastes.

(i) Hazardous wastes generated by a small quantity generator or large quantity generator may be mixed with solid waste. These mixtures are subject to the following: the mixture rule in 335-14-2-.01(3)(a)2.(iv), (b)2. and (b)3., and (g)2.(i); the prohibition of dilution rule at 335-14-9-.01(3); the land disposal restriction requirements of 335-14-9-.04(1) if a characteristic hazardous waste is mixed with a solid waste so that it no longer exhibits the hazardous characteristic; and the hazardous waste determination requirement at 335-14-3-.01(2).

(ii) If the resulting mixture is found to be a hazardous waste, this resultant mixture is a newly-generated hazardous waste. A small quantity generator must count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the small quantity generator calendar monthly quantity limits identified in the definition of generator categories under 335-14-1-.02. If so, to remain exempt from the permitting, interim status, and operating standards, the small quantity generator must meet the conditions for exemption applicable to a large quantity generator. The small quantity generator must also comply with the applicable independent requirements for a large quantity generator.

(4) Conditions for exemption for a very small quantity generator.

(a) Provided that the very small quantity generator meets all the conditions for exemption listed in this section, hazardous waste generated by the very small quantity generator is not subject to the requirements of 335-14-3 [except 335-14-3-.01(1) through (4)] through 335-14-9, and the very small quantity generator may accumulate hazardous waste on site without complying with such requirements. The conditions for exemption are as follows:

1. In a calendar month the very small quantity generator generates less than or equal to the amounts specified in the definition of “very small quantity generator” in 335-14-1-.02;

2. The very small quantity generator complies with 335-14-3-.01(2);

3. If the very small quantity generator accumulates at any time greater than 1 kilogram (2.2 lbs) of acute hazardous waste or 100 kilograms (220 lbs) of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in 335-14-2-.04(2) or 335-

14-2-.04(4)(e), all quantities of that acute hazardous waste are subject to the following additional conditions for exemption:

(i) Such waste is held on site for no more than 90 days beginning on the date when the accumulated wastes exceed the amounts provided above; and

(ii) The conditions for exemption in 335-14-3-.01(7)(a)-(g).

4. If the very small quantity generator accumulates at any time 1,000 kilograms (2,200 lbs) or greater of non-acute hazardous waste, all quantities of that hazardous waste are subject to the following additional conditions for exemption:

(i) Such waste is held on site for no more than 180 days, or 270 days, if applicable, beginning on the date when the accumulated waste exceed the amounts provided above;

(ii) The quantity of waste accumulated on site never exceeds 6,000 kilograms (13,200 lbs); and

(iii) The conditions for exemption in 335-14-3-.01(6)(b)2. through (6)(f).

5. A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits in 335-14-3-.01(4)(a)3. through 4. must either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under 335-14-8;

(ii) In interim status under 335-14-6 and 335-14-8;

(iii) Authorized to manage hazardous waste by, either, another state with a hazardous waste management program approved under 40 CFR Part 271, or by EPA under 40 CFR Part 265 or Part 270, if in a state without a hazardous waste management program approved under 40 CFR Part 271;

(iv) a landfill permitted to manage municipal solid waste under 335-13, or a facility permitted, licensed, or registered by another state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to 40 CFR Part 258;

(v) a landfill permitted to manage non-municipal solid waste under 335-13, or a facility permitted, licensed, or registered by another state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, is subject to the requirements in 40 CFR §§257.5 through 257.30;

(vi) A facility which:

a. Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

b. Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation;

(vii) For universal waste, a universal waste handler or destination facility subject to the requirements 335-14-11;

(viii) A large quantity generator under the control of the same person as the very small quantity generator, provided the following conditions are met:

a. The very small quantity generator and the large quantity generator are under the control of the same person as defined in 335-14-1-.02. "Control," for the purposes of this rule, means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person as defined in 335-14-1-.02 shall not be deemed to "control" such generators.

b. The very small quantity generator marks its container(s) of hazardous waste with:

(I) The words "Hazardous Waste" and

(II) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).

(ix) A reverse distributor (as defined in 335-14-1-.02), if the hazardous waste pharmaceutical is a potentially creditable hazardous waste pharmaceutical generated by a healthcare facility (as defined in 335-14-1-.02).

(x) A healthcare facility (as defined in 335-14-1-.02) that meets the conditions in 335-14-7-.16(2)(l) and 335-14-7-.16(3)(b), as applicable, to accept non-creditable hazardous waste pharmaceuticals and potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator.

(xi) For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements of 335-14-2-.01(4)(j).

(b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(c) A very small quantity generator experiencing an episodic event may generate and accumulate hazardous waste in accordance with 335-14-3-.13 in lieu of 335-14-3-.01(5)-(7).

(d) A very small quantity generator is not required to have an EPA ID number, but may obtain one if desired by complying with the requirements of 335-14-3-.01(8)(d). A very small quantity generator with an existing and active EPA ID number is required to submit ADEM Form 8700-12 annually or deactivate the number by formally notifying the Department in accordance with the requirements of 335-14-3-.01(8)(d)4.

(5) Satellite accumulation area requirements for small and large quantity generators.

(a) A generator may accumulate as much as 55 gallons of non-acute hazardous waste and/or either one quart of liquid acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e) or 1 kg (2.2 lbs) of solid acute hazardous waste listed in 14-2-.04(2) or 335-14-2-.04(4)(e) in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of 335-14-5 through 335-14-8, provided that all of the conditions for exemption in this section are met. A generator may comply with the conditions for exemption in this section instead of complying with the conditions for exemption in 335-14-3-.01(6)(b) or (7)(a), except as required in 335-14-3-.01(5)(a)7.through 8. The conditions for exemption for satellite accumulation are:

1. If a container holding hazardous waste is not in good condition, or if it begins to leak, the generator must immediately transfer the hazardous waste from this container to a container that is in good condition and does not leak, or immediately transfer and manage the waste in a central accumulation area operated in compliance with 335-14-3-.01(6)(b) or (7)(a).

2. The generator must use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

3. Special standards for incompatible wastes.

(i) Incompatible wastes, or incompatible wastes and materials, (see 335-14-6 Appendix V) must not be placed in the same container, unless 335-14-6-.02(8)(b) is complied with.

(ii) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see 335-14-6 Appendix V for examples), unless 335-14-6-.02(8)(b) is complied with.

(iii) A container holding a hazardous waste that is incompatible with any waste or other materials accumulated nearby in other containers must be separated from the other materials or protected from them by any practical means.

4. A container holding hazardous waste must be closed at all times during accumulation, except:

(i) When adding, removing, or consolidating waste; or

(ii) When temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.

5. A generator must mark or label its container with the following:

(i) The words "Hazardous Waste" and

(ii) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).

6. A generator who accumulates either acute hazardous waste listed in 335-14-2-.04(2) or 335-14-2-.04(4)(e) or non-acute hazardous waste in excess of the amounts listed in 335-14-3-.01(5)(a) at or near any point of generation must do the following:

(i) Comply within three consecutive calendar days with the applicable central accumulation area regulations in 335-14-3-.01(6)(b) or (7)(a), or

(ii) Remove the excess from the satellite accumulation area within three consecutive calendar days to either a central accumulation area operated in accordance with the applicable requirements in 335-14-3-.01(6)(b) or (7)(a), an on-site interim status or permitted treatment, storage, or disposal facility, or an off-site designated facility; and

(iii) During the three-consecutive-calendar-day period the generator must continue to comply with 335-14-3-.01(5)(a)1.through 5. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

7. All satellite accumulation areas operated by a small quantity generator must meet the preparedness and prevention regulations in 335-14-3-.01(6)(b)8. and emergency procedures at 335-14-3-.01(6)(b)9.

8. All satellite accumulation areas operated by a large quantity generator must comply with 335-14-3-.14.

(b) [Reserved]

(6) <u>Conditions for exemption for a small quantity generator that accumulates hazardous waste</u>. A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of 335-14-5 through 335-14-8, provided that all the conditions for exemption listed in this section are met:

(a) Generation. The generator generates in a calendar month no more than the amounts specified in the definition of "small quantity generator" in 335-14-1-.02.

(b) Accumulation. The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in 335-14-3-.01(6)(d) and (e). The following accumulation conditions also apply:

1. Accumulation limit. The quantity of hazardous waste accumulated on site never exceeds 6,000 kilograms (13,200 pounds);

2. Accumulation of hazardous waste in containers.

(i) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the small quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section.

(ii) Compatibility of waste with container. The small quantity generator must use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

(iii) Management of containers. A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste and must not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak. Containers having a capacity greater than 30 gallons must not be stacked over two containers high.

(iv) Inspections. At least weekly, the small quantity generator must inspect central accumulation areas. The small quantity generator must look for leaking containers and for deterioration of containers caused by corrosion or other factors, and comply with 335-14-3-.01(6)(b)2.(i) if deterioration or leaks are detected. The small quantity generator must record inspections in an inspection log or summary that, at a minimum, includes the date and time of the inspection, the name of the inspector, a notation of observations made, and the date and nature of any repairs or other remedial actions. These records must be kept for at least three years from the date of inspection.

(v) Special conditions for accumulation of incompatible wastes.

a. Incompatible wastes, or incompatible wastes and materials, (see 335-14-6 Appendix V for examples) must not be placed in the same container, unless 335-14-6-.02(8)(b) is complied with.

b. Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see 335-14-6 Appendix V for examples), unless 335-14-6-.02(8)(b) is complied with.

c. A container accumulating hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

3. Accumulation of hazardous waste in tanks.

(i) [Reserved]

(ii) A small quantity generator of hazardous waste must comply with the following general operating conditions:

a. Accumulation of hazardous waste in tanks must comply with 335-14-6-.02(8)(b).

b. Hazardous wastes must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

c. Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

d. Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., waste feed cutoff system or by-pass system to a stand-by tank).

(iii) Except as noted in 335-14-3-.01(6)(b)3.(iv), a small quantity generator that accumulates hazardous waste in tanks must inspect, where present:

a. Discharge control equipment (e.g., waste feed cutoff systems, by-pass systems, and drainage systems) at least once each operating day, to ensure that it is in good working order;

b. Data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day to ensure that the tank is being operated according to its design;

c. The level of waste in the tank at least once each operating day to ensure compliance with 335-14-3-.01(6)(b)3.(ii)c.;

d. The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and

e. The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation). The generator must remedy any deterioration or malfunction of equipment or structures which the inspection

reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(iv) A small quantity generator accumulating hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly, where applicable, the areas identified in 335-14-3-.01(6)(b)3.(iii)a. through e. Use of the alternate inspection schedule must be documented in the generator's operating record. This documentation must include a description of the established workplace practices at the generator.

(v) [Reserved].

(vi) A small quantity generator accumulating hazardous waste in tanks must, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the small quantity generator can demonstrate, in accordance with 335-14-2-.01(3)(c) or (d), that any solid waste removed from its tank is not a hazardous waste, then it must manage such waste in accordance with all applicable provisions of parts 335-14-3 through 335-14-9.

(vii) A small quantity generator must comply with the following special conditions for accumulation of ignitable or reactive waste:

a. Ignitable or reactive waste must not be placed in a tank, unless 335-14-6-.02(8)(b) is complied with, and the waste is accumulated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react, or the tank is used solely for emergencies.

b. A small quantity generator which accumulates ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's “Flammable and Combustible Liquids Code” (1977 or 1981) (incorporated by reference in 335-14-1-.02(2)).

(viii). A small quantity generator must comply with the following special conditions for incompatible wastes:

a. Incompatible wastes, or incompatible wastes and materials, (see 335-14-6 Appendix V for examples) must not be placed in the same tank, unless 335-14-6-.02(8)(b) is complied with.

b. Hazardous waste must not be placed in an unwashed tank that previously held an incompatible waste or material, unless 335-14-6-.02(8)(b) is complied with.

4. <u>Accumulation of hazardous waste on drip pads</u>. If the waste is placed on drip pads, the small quantity generator must comply with the following:

(i) 335-14-6-.23, except 335-14-6-.23(6);

(ii) The small quantity generator must remove all wastes from the drip pad at least once every 90 days. Any hazardous wastes that are removed from the drip pad at least once every 90 days are then subject to the 180-day accumulation limit in 335-14-3-.01(6)(b) and 335-14-3-.01(5) if hazardous wastes are being managed in satellite accumulation areas prior to being moved to the central accumulation area; and

(iii) The small quantity generator must maintain on site at the facility the following records readily available for inspection:

a. A written description of procedures that are followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and

b. Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

5. Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the small quantity generator must comply with 335-14-6-.30. The generator must label its containment buildings with the words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on site and also in a conspicuous place provide an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704). The generator must also maintain:

(i) The professional engineer certification that the building complies with the design standards specified in 335-14-6-.30(2). This certification must be in the generator's files prior to operation of the unit; and

(ii) The following records by use of inventory logs, monitoring equipment, or any other effective means:

a. A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with maintaining the 90 day limit, and documentation that the procedures are complied with; or

b. Documentation that the unit is emptied at least once every 90 days.

c. Inventory logs or records with the above information must be maintained on site and readily available for inspection.

6. Labeling and marking of containers and tanks.

(i) Containers. A small quantity generator must mark or label its containers with the following:

a. The words "Hazardous Waste";

b. An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704);

c. The date upon which each period of accumulation begins is clearly visible for inspection on each container; and

d. All appropriate hazardous waste numbers associated with the hazardous waste as specified in 335-14-2-.03 and 335-14-2-.04.

(ii) Tanks. A small quantity generator accumulating hazardous waste in tanks must do the following:

a. Mark or label its tanks with the words "Hazardous Waste" and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. Mark or label its tanks with an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704);

c. Use inventory logs, monitoring equipment, or other records to demonstrate that hazardous waste has been emptied within 180 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 180 days of first entering; and

d. Keep inventory logs or records with the above information on site and readily available for inspection.

7. Land disposal restrictions. A small quantity generator must comply with all the applicable requirements under 335-14-9.

8. Preparedness and prevention.

(i) Maintenance and operation of facility. A small quantity generator must maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

(ii) Required equipment. All areas where hazardous waste is either generated or accumulated must be equipped with the items in paragraphs 335-14-3-.01(6)(b)8.(ii)a. through d. Upon approval from the Department, a small quantity generator may omit or substitute one or more items listed in 335-14-3-.01(6)(b)8.(ii)a. if none of the hazards posed by waste handled at the facility could require a particular kind of equipment or the actual waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified below. A small quantity generator may determine the most appropriate locations to locate equipment necessary to prepare for and respond to emergencies.

a. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

b. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local law enforcement agencies, fire departments, or State or local emergency response teams;

c. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

d. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(iii) Testing and maintenance of equipment. All communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(iv) Access to communications or alarm system.

a. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access (e.g., direct or unimpeded access) to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under 335-14-3-.01(6)(b)8.(ii).

b. In the event there is just one employee on the premises while the facility is operating, the employee must have immediate access (e.g., direct or unimpeded access) to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under paragraph 335-14-3-.01(6)(b)8.(ii).

(v) Required aisle space. The small quantity generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(vi) Arrangements with local authorities.

a. The small quantity generator must attempt to make arrangements with the local law enforcement agency, fire department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements. A small quantity generator attempting to make arrangements with its local fire department must determine the potential need for the services of the local law enforcement agency, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals. As part of this coordination, the small quantity generator shall attempt to make arrangements, as necessary, to familiarize the above organizations with the layout of the facility, the properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility. Where more than one law enforcement agency or fire department might respond to an emergency, the small quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or law enforcement agency, and arrangements with any others to provide support to the primary emergency authority.

b. A small quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation must include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

c. A facility possessing 24-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code within the facility's state or locality from the requirements to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the operating record.

9. Emergency procedures. The small quantity generator complies with the following conditions for those areas of the generator facility where hazardous waste is generated and accumulated:

(i) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph 335-14-3-.01(6)(b)9.(iv) of this section. This employee is the emergency coordinator.

(ii) The small quantity generator must post the following information next to telephones or in areas directly involved in the generation and accumulation of hazardous waste:

a. The name and emergency telephone number of the emergency coordinator;

b. Location of fire extinguishers and spill control material, and, if present, fire alarm; and

c. The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The small quantity generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:

a. In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

b. In the event of a spill, the small quantity generator is responsible for containing the flow of hazardous waste to the extent possible, and as soon as is practicable, cleaning up the hazardous waste and any contaminated materials or soil. Such containment and cleanup can be conducted either by the small quantity generator or by a contractor on behalf of the small quantity generator;

c. In the event of a fire, explosion, or other release that could threaten human health outside the facility or when the small quantity generator has knowledge that a spill has reached surface water, the small quantity generator must immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include the following information:

(I) The name, address, and U.S. EPA identification number of the small quantity generator;

(II) Date, time, and type of incident (e.g., spill or fire);

(III) Quantity and type of hazardous waste involved in the incident;

(IV) Extent of injuries, if any; and

(V) Estimated quantity and disposition of recovered materials, if any.

10. Employee training. Facility personnel whose duties have a direct effect on hazardous waste management and/or hazardous waste accumulation, whether by direct contact with the hazardous waste or through hazardous waste management activities, must receive training.

(i) The training program must consist of classroom instruction or on-the-job training that teaches employees to perform their duties in a way that ensures the facility's compliance with the requirements of 335-14-3 during normal site operations and emergencies;

(ii) The small quantity generator must maintain at the site documentation that the required training has been administered to and completed by required employees. Documentation of training records must be maintained on-site for a period of at least three years from the date the employee last worked for the generator or until the generator closes, whichever comes first.

(iii) The generator must maintain on-site a written description of the training required under 335-14-3-.01(6)(b)10.

(c) Transporting over 200 miles. A small quantity generator who must transport its waste, or offer its waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on site for 270 days or less without a permit or without having interim status provided that the generator complies with the conditions of 335-14-3-.01(6)(b).

(d) Accumulation time limit extension. A small quantity generator who accumulates hazardous waste for more than 180 days (or for more than 270 days if it must transport its waste, or offer its waste for transportation, over a distance of 200 miles or more) is subject to the requirements of 335-14-5 through 335-14-9 unless it has been granted an extension to the 180-day (or 270-day if applicable) period. Such extension may be granted by the Department if hazardous wastes must remain on site for longer than 180 days (or 270 days if applicable) due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Department on a case-by-case basis.

(e) Rejected load. A small quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of 335-14-5-.05(3) or 335-14-6-.05(3) may accumulate the returned waste on site in accordance with 335-14-3-.01(6)(a) - (d). Upon receipt of the returned shipment, the generator must:

1. Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

2. Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

(f) A small quantity generator experiencing an episodic event may accumulate hazardous waste in accordance with 335-14-3-.13 in lieu of 335-14-3-.01(7).

(7) Conditions for exemption for a large quantity generator that accumulates hazardous waste. A large quantity generator may accumulate hazardous waste on site

without a permit or interim status, and without complying with the requirements of 335-14-5 through 335-14-8, provided that all of the following conditions for exemption are met:

(a) Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in 335-14-3-.01(7)(b) through (e). The following accumulation conditions also apply:

1. Accumulation of hazardous waste in containers. If the hazardous waste is placed in containers, the large quantity generator must comply with the following:

(i) Air emission standards. The applicable requirements of 335-14-6-.27, .28, and .29;

(ii) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section;

(iii) Compatibility of waste with container. The large quantity generator must use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired;

(iv) Management of containers. A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste and must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak. Containers having a capacity greater than 30 gallons must not be stacked over two containers high.

(v) Inspections. At least weekly, the large quantity generator must inspect central accumulation areas. The large quantity generator must look for leaking containers and for deterioration of containers caused by corrosion or other factors. The large quantity generator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(vi) Special conditions for accumulation of ignitable and reactive wastes.

a. Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line unless a written approval is obtained from the authority having jurisdiction over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval must be maintained as long as ignitable or reactive hazardous waste is accumulated in this area.

b. The large quantity generator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to the following: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the large quantity generator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(vii) Special conditions for accumulation of incompatible wastes.

a. Incompatible wastes, or incompatible wastes and materials, (see 335-14-6 Appendix V for examples) must not be placed in the same container, unless 335-14-6-.02(8)(b) is complied with.

b. Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see 335-14-6 Appendix V for examples), unless 335-14-6-.02(8)(b) is complied with.

c. A container holding a hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

(viii) Containment. Container storage areas must meet the containment requirements of 335-14-6-.09(6).

2. Accumulation of hazardous waste in tanks. If the waste is placed in tanks, the large quantity generator must comply with the applicable requirements of 335-14-6-.10, except 335-14-6-.10(8)(e) and 335-14-6-.10(11), as well as the applicable requirements of 335-14-6-.27, .28, and .29.

3. Accumulation of hazardous waste on drip pads. If the hazardous waste is placed on drip pads, the large quantity generator must comply with the following:

(i) 335-14-6-.23;

(ii) The large quantity generator must remove all wastes from the drip pad at least once every 90 days. Any hazardous wastes that are removed from the drip pad are then subject to the 90-day accumulation limit in 335-14-3-.01(7)(a) and 335-14-3-.01(5), if the hazardous wastes are being managed in satellite accumulation areas prior to being moved to a central accumulation area; and

(iii) The large quantity generator must maintain on site at the facility the following records readily available for inspection:

a. A written description of procedures that are followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and

b. Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

4. Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the large quantity generator must comply with 335-14-6-.30. The generator must label its containment building with the words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on site, and also in a conspicuous place provide an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704). The generator must also maintain:

(i) The professional engineer certification that the building complies with the design standards specified in 335-14-6-.30(2). This certification must be in the generator's files prior to operation of the unit; and

(ii) The following records by use of inventory logs, monitoring equipment, or any other effective means:

a. A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or

b. Documentation that the unit is emptied at least once every 90 days.

c. Inventory logs or records with the above information must be maintained on site and readily available for inspection.

5. Labeling and marking of containers and tanks.

(i) Containers. A large quantity generator must mark or label its containers with the following:

a. The words "Hazardous Waste";

b. An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

a chemical hazard label consistent with the National Fire Protection Association code 704);

c. The date upon which each period of accumulation begins clearly visible for inspection on each container; and

d. All appropriate EPA hazardous waste numbers associated with the hazardous waste as specified in 335-14-2-.03 and 335-14-2-.04.

(ii) Tanks. A large quantity generator accumulating hazardous waste in tanks must do the following:

a. Mark or label its tanks with the words "Hazardous Waste" and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. Mark or label its tanks with an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704);

c. Use inventory logs, monitoring equipment or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 90 days of first entering; and

d. Keep inventory logs or records with the above information on site and readily available for inspection.

6. Emergency procedures. The large quantity generator must comply with 335-14-3-.14, Preparedness, Prevention and Emergency Procedures for Large Quantity Generators.

7. Personnel training.

(i) Required program.

a. Facility personnel must successfully complete a program of classroom instruction, online training (e.g., computer-based or electronic), or on-the-job training that teaches them to perform their duties in a way that ensures compliance with 335-14-3. The large quantity generator must ensure that this program includes all the elements described in the document required under 335-14-3-.01(7)(a)7.(iv).

b. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel

hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

c. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(I) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(II) Key parameters for automatic waste feed cut-off systems;

(III) Communications or alarm systems;

(IV) Response to fires or explosions;

(V) Response to ground-water contamination incidents; and

(VI) Shutdown of operations.

d. For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the large quantity generator is not required to provide separate emergency response training pursuant to this section, provided that the overall facility training meets all the conditions of exemption in this section.

(ii) Facility personnel must successfully complete the program required in 335-14-3-.01(7)(a)7.(i) within six months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees must not work in unsupervised positions until they have completed the training standards of 335-14-3-.01(7)(a)7.(i).

(iii) Annual Review. Facility personnel must take part in an annual review of the initial training required in 335-14-3-.01(7)(a)7.(i).

(iv) Training Records. The large quantity generator must maintain the following documents and records at the facility:

a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

b. A written job description for each position listed under 335-14-3-.01(7)(a)7.(iv)a. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

c. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under 335-14-3-.01(7)(a)7.(iv)a.;

d. Records that document that the training or job experience, required under 335-14-3-.01(7)(a)7.(i) - (iii), has been given to, and completed by, facility personnel.

(v) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

8. Closure. A large quantity generator accumulating hazardous wastes in containers, tanks, drip pads, and containment buildings, prior to closing a unit at the facility, or prior to closing the facility, must meet the following conditions:

(i) Notification for closure of the facility.

a. Prior to closure. A large quantity generator who closes a unit, either during the active life of the facility or at closure of the facility, must notify the Department in writing no less than 30 days prior to the expected date of beginning closure. The notification must include:

(I) The generator's name, address, and EPA identification number;

(II) The date closure is expected to begin, and a timeframe for completing closure activities (not to exceed 180 days);

(III) A description of the units to be closed, and a site diagram identifying each unit;

(IV) The procedures to be used for closure;

(V) The type and maximum volume of hazardous wastes stored in the unit at any time and the associated EPA hazardous waste numbers;

(VI) The type and amount of hazardous waste expected to be stored in the unit at the time closure activities are expected to begin;

(VII) The conditions of the unit(s) at the time of the notification; and

(VIII) Plans for hazardous waste determinations on, and proper management and disposal of, stored wastes, unit components, investigation derived wastes, and decontamination wastes.

b. After closure. Within 45 Days after completion of closure, the owner or operator must provide a written report documenting the procedures used to comply with the closure performance standards of 335-14-3-.01(7)(a)8.(ii) or (iii). This report shall not be deemed complete without payment of the fee specified in Chapter 335-1-6 of the Department's Administrative Code. If the facility cannot meet the closure performance

standards of 335-14-3-.01(7)(a)8.(ii) or (iii), the large quantity generator must notify the Department in writing that it will close as a landfill under 335-14-6-.14(11) in the case of a container, tank or containment building unit(s), or for a facility with drip pads, notify that it will close under the standards of 335-14-6-.23(6).

c. A large quantity generator may request additional time to clean close, but it must notify the Department in writing within 75 days after the date provided in 335-14-3-.01(7)(a)8.(i)a. to request an extension and provide an explanation as to why the additional time is required.

(ii) Closure performance standards for container, tank systems, and containment building waste accumulation units.

a. At closure, the generator must close the waste accumulation unit or facility in a manner that:

(I) Minimizes the need for further maintenance by controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere,

(II) Removes or decontaminates all contaminated equipment, structures and soil and any remaining hazardous waste residues from waste accumulation units including containment system components (pads, liners, etc.), contaminated soils and subsoils, bases, and structures and equipment contaminated with waste, unless 335-14-2-.01(3)(d) applies.

(III) Any hazardous waste generated in the process of closing either the generator's facility or unit(s) accumulating hazardous waste must be managed in accordance with all applicable standards of 335-14-3 through 335-14-9, including removing any hazardous waste contained in these units within 90 days of generating it and managing these wastes in a permitted hazardous waste treatment, storage and disposal facility or interim status facility.

(IV) If the generator demonstrates that any contaminated soils and wastes cannot be practicably removed or decontaminated as required in 335-14-3-.01(7)(a)8.(ii)a.(II) of this section, then the waste accumulation unit is considered to be a landfill and the generator must close the waste accumulation unit and perform post-closure care in accordance 335-14-6-.14(11). In addition, for the purposes of closure, post-closure, and financial responsibility, such a waste accumulation unit is then considered to be a landfill, and the generator must meet all of the requirements for landfills specified in 335-14-6-.07 and .08.

(iii) Closure performance standards for drip pad waste accumulation units. At closure, the generator must comply with the closure requirements of 335-14-3-.01(7)(a)8.(i) and 335-14-3-.01(7)(a)8.(ii)a.(I) and (III), and 335-14-6-.23(6)(a) and (b).

(iv) The closure requirements of 335-14-3-.01(7)(a)8. do not apply to satellite accumulation areas.

9. Land disposal restrictions. The large quantity generator must comply with all applicable requirements under 335-14-9.

10. Site security. The large quantity generator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock into the central accumulation area, unless physical contact with the waste, structures, or equipment will not injure unknowing or unauthorized persons or livestock which may enter the central accumulation area, and disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock into the central accumulation area will not cause a violation of the requirements of 335-14-3.

(i) Unless exempt under 335-14-3-.01(7)(a)10., a large quantity generator must have:

1. A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

2. An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility, and a means to control entry, at all times, through the gates or other entrances to the central accumulation area (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(ii) Unless exempt under 335-14-3-.01(7)(a)10., a sign with the legend, "Danger--Unauthorized Personnel Keep Out", must be posted at each entrance to the central accumulation area, and at other locations, in sufficient numbers to be seen from any approach. The legend must be written in English and in any other language predominant in the workplace and the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

(b) Accumulation time limit extension. A large quantity generator who accumulates hazardous waste for more than 90 days is subject to the requirements of 335-14-5 through 9, unless it has been granted an extension to the 90-day period. Such extension may be granted by the Department if hazardous wastes must remain on site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Department on a case-by-case basis.

(c) Accumulation of F006. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, may accumulate F006 waste on site for more than 90 days, but not more than 180 days without being subject to 335-14-5 through 9, provided that it complies with all of the following additional conditions for exemption:

1. The large quantity generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering F006 or otherwise released to the environment prior to its recycling;

2. The F006 waste is legitimately recycled through metals recovery;

3. No more than 20,000 kilograms of F006 waste is accumulated on site at any one time; and

4. The F006 waste is managed in accordance with the following:

(i) Unit-specific requirements for F006 waste.

a. If the F006 waste is placed in containers, the large quantity generator must comply with the applicable conditions for exemption in 335-14-3-.01(7)(a)1.; and/or

b. If the F006 is placed in tanks, the large quantity generator must comply with the applicable conditions for exemption in 335-14-3-.01(7)(a)2.; and/or

c. If the F006 is placed in containment buildings, the large quantity generator must comply with 335-14-6-.30, and must have placed its professional engineer certification that the building complies with the design standards specified in 335-14-6-.30(2) in the facility's files prior to operation of the unit. The large quantity generator must maintain the following records:

(I) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the large quantity generator is complying with the procedures; or

(II) Documentation that the unit is emptied at least once every 180 days.

(ii) The large quantity generator is exempt from all the requirements in 335-14-6-.07 and .08, except for those referenced in 335-14-3-.01(7)(a)8.

(iii) The date upon which each period of accumulation begins is clearly marked and must be clearly visible for inspection on each container;

(iv) While being accumulated on site, each container and tank is labeled or marked clearly with:

a. The words “Hazardous Waste” and the EPA hazardous waste number; and

b. An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F

(placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).

(v) The large quantity generator complies with the requirements in 335-14-3-.01(7)(a)6. and 7.

(d) F006 transported over 200 miles. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on site for more than 90 days, but not more than 270 days without being subject to 335-14-5 through 335-14-8, if the large quantity generator complies with all of the conditions for exemption of 335-14-3-.01(7)(c)1. through 4.

(e) F006 accumulation time extension. A large quantity generator accumulating F006 in accordance with 335-14-3-.01(7)(c) and (d) of this section who accumulates F006 waste on site for more than 180 days (or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more), or who accumulates more than 20,000 kilograms of F006 waste on site is an operator of a storage facility and is subject to the requirements of 335-14-5 through 335-14-8, unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by the Department if F006 waste must remain on site for longer than 180 days (or 270 days if applicable) or if more than 20,000 kilograms of F006 waste must remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Department on a case-by-case basis.

(f) Consolidation of hazardous waste received from very small quantity generators. Large quantity generators may accumulate on site hazardous waste received from very small quantity generators under control of the same person (as defined in 335-14-1-.02), without a storage permit or interim status and without complying with the requirements of 335-14-5 through 35-14-8, provided that they comply with the following conditions. “Control,” for the purposes of this section, means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person shall not be deemed to “control” such generators.

1. The large quantity generator notifies the Department at least thirty (30) days prior to receiving the first shipment from a very small quantity generator(s) using ADEM Form 8700-12; and

(i) Identifies on the form the name(s) and site address(es) for the very small quantity generator(s) as well as the name and business telephone number for a contact person for the very small quantity generator(s); and

(ii) Submits an updated ADEM Form 8700-12 within 30 days after a change in the name or site address for the very small quantity generator.

2. The large quantity generator maintains records of shipments for three years from the date the hazardous waste was received from the very small quantity generator. These records must identify the name, site address, and contact information for the very small quantity generator and include a description of the hazardous waste received, including the quantity and the date the waste was received.

3. The large quantity generator complies with the independent requirements identified in 335-14-3-.01(1)(a)1.(iii) and the conditions for exemption in 335-14-3-.01(7) for all hazardous waste received from a very small quantity generator. For purposes of the labeling and marking regulations in 335-14-3-.01(7)(a)5., the large quantity generator must label the container or unit with the date accumulation started (i.e., the date the hazardous waste was received from the very small quantity generator). If the large quantity generator is consolidating incoming hazardous waste from a very small quantity generator with either its own hazardous waste or with hazardous waste from other very small quantity generators, the large quantity generator must label each container or unit with the earliest date any hazardous waste in the container was accumulated on site.

(g) Rejected load. A large quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of 335-14-5-.05(3) or 335-14-6-.05(3) may accumulate the returned waste on site in accordance with 335-14-3-.01(7)(a) and (b). Upon receipt of the returned shipment, the generator must:

1. Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

2. Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

(8) EPA identification numbers and re-notification for small quantity generators and large quantity generators.

(a) A generator must not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Department.

(b) A generator who has not received an EPA identification number may obtain one by applying to the Department using the ADEM Form 8700-12. Upon receiving the request, the Department will assign an EPA identification number to the generator. A generator shall file a new ADEM Form 8700-12 if the generator changes physical location.

[**Note:** EPA identification numbers are location specific and cannot be transferred from one individual generation site to another.]

(c) A generator must not offer his hazardous waste to transporters that have not received an EPA identification number and an Alabama Hazardous Waste Transport Permit or to treatment, storage, or disposal facilities that have not received an EPA identification number and an Alabama Hazardous Waste Facility Permit or interim status pursuant to 335-14-8-.07 (or, in the case of out-of-state facilities, a permit valid in the receiving state).

(d) Annual notification of regulated waste activity and certifications of waste management.

1. A large quantity generator or small quantity generator must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current waste activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at 335-14-1-.02(1)(a).

2. Except as provided by 335-14-3-.13, generators which anticipate an increase in hazardous waste generation in amounts significant enough to cause a change to a higher generator classification should notify for the higher classification during the annual notification period (i.e., if a generator typically operates as a small quantity generator, but anticipates being a large quantity generator for any period during the year, they should notify as a large quantity generator). However, if a generator chooses not to notify at the higher classification or fails to anticipate an increase in hazardous waste generation that would change their generator status, a notification must be submitted to the Department at the time of the increase.

[**Note:** If a generator notifies at a level higher than their actual generator status, the generator will be required to comply with all the applicable requirements of that higher generator classification. Alternatively, the generator has the option to submit multiple ADEM Form 8700-12 notifications (including all appropriate attachment pages and fees) each time their generator status changes, and comply with the requirements applicable to their actual monthly generator status.]

3. A very small quantity generator is not required to obtain an EPA ID number, but may do so by complying with 335-14-3-.01(8)(b). A very small quantity generator with an existing and active EPA ID number is required to submit ADEM Form 8700-12 annually in accordance with 335-14-3-.01(8)(d)1.

4. A very small quantity generator that has an EPA ID number and wants to stop using it for their site may send a letter to the Department requesting that the ID number be deactivated. The deactivated ID cannot be used by the generator for any purpose after that point.

[**Note:** The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.]

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335-14-3-.02 <u>Manifest Requirements Applicable to Small and Large Quantity Generators</u>.

(1) <u>General requirements</u>.

(a) <u>General</u>.

1. A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transportation a rejected hazardous waste load, must prepare a Manifest (OMB control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.

2. [Reserved].

3. <u>Electronic manifest</u>. In lieu of using the manifest form specified in 335-14-3-.02(1)(a), a person required to prepare a manifest may prepare and use an electronic manifest, provided that the person:

(i) Complies with the requirements of 335-14-3-.02(5).

(ii) Complies with the requirements of 40 CFR § 3.10 for the reporting of electronic documents to EPA.

(b) A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste to the generator.

(e) The requirements of 335-14-3-.02 do not apply to small quantity generators where:

1. The waste is reclaimed under a contractual agreement pursuant to which:

(i) The type of waste and frequency of shipments are specified in the agreement;

(ii) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

2. The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.

(f) The requirements of 335-14-3-.02 and 335-14-3-.03(3)(b) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding 335-14-4-.01(1)(a), the generator or transporter must comply with the requirements for transporters set forth in 335-14-4-.03(1) and (2) in the event of a discharge of hazardous waste on a public or private right-of-way.

(2) Manifest tracking numbers, manifest printing, and obtaining manifests.

(a) General.

1. A registrant may not print, or have printed the manifest for use or distribution unless it has received approval from the EPA Director of the Office of Resource Conservation and Recovery to do so under 40 CFR 262.21(c) and 262.21(e).

2. The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the requirements of this section. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(b) [Reserved].

(c) [Reserved].

(d) [Reserved].

(e) [Reserved].

(f) [Reserved].

(g) A generator may use manifests printed by any source so long as the source of the printed form has received approval from the EPA to print the manifest under 40 CFR 262.21(c) and 262.21(e).

1. A registered source may be a:

(i) State agency;

(ii) Commercial printer;

(iii) Hazardous waste generator, transporter or TSDF; or

(iv) Hazardous waste broker or other preparer who prepares or arranges shipments of hazardous waste for transportation.

2. A generator must determine whether the generator state or the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under the states' authorized programs. Generators also must determine whether the consignment state or generator state requires the generator to submit any copies of the manifest to these states. In cases where the generator must supply copies to either the generator's state or the consignment state, the generator is responsible for supplying legible photocopies of the manifest to these states.

(3) Number of copies. The manifest shall consist of at least the number of copies which will provide the Department (if required), the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

(4) Use of the manifest.

(a) The generator must:

1. Sign the manifest certification by hand; and

2. Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

3. Retain one copy of the manifest, in accordance with 335-14-3-.04(1)(a).

(b) The generator must give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with 335-14-3-.02(4) to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with 335-14-3-.02(4) to:

1. The next non-rail transporter, if any; or

2. The designated facility if transported solely by rail; or

3. The last rail transporter to handle the waste in the United States if exported by rail.

(e) For shipments of hazardous waste to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

(f) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator by the designated facility [following the procedures of 335-14-5-.05(3)(f) or 335-14-6-.05(3)(f)], the generator must:

1. Sign either:

(i) Item 20 of the new manifest if a new manifest is used for the returned shipment; or

(ii) Item 18c of the original manifest if the original manifest is used for the returned shipment;

2. Provide the transporter a copy of the manifest;

3. Within thirty (30) days of delivery of the rejected shipment or container residues contained in non-empty containers, send a copy of the manifest to the designated facility that returned the shipment to the generator; and

4. Retain at the generator's site a copy of each manifest for at least three (3) years from the date of delivery.

(5) Use of the electronic manifest.

(a) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance with 335-14-3-.02(1)(b) and 335-14-3-.02(5), in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

1. Any requirement to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 40 CFR § 262.25(a).

2. Any requirement to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when an electronic manifest is transmitted to the other person by submission to the e-Manifest system.

3. Any requirement for a generator to keep or retain a copy of each manifest is satisfied by retention of a signed electronic manifest in the generator's account on the national e-Manifest system, provided that such copies are readily available for viewing and production if requested by the Department.

4. No generator may be held liable for the inability to produce an electronic manifest for inspection under this section if the generator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the generator bears no responsibility.

(b) A generator may participate in the electronic manifest system either by accessing the electronic manifest system from its own electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the generator's site by the transporter who accepts the hazardous waste shipment from the generator for offsite transportation.

(c) Restriction on use of electronic manifests. A generator may use an electronic manifest for the tracking of hazardous waste shipments involving any hazardous waste only if it is known at the time the manifest is originated that all waste handlers named on the manifest participate in the electronic manifest system, except that:

1. A generator may sign by hand and retain a paper copy of the electronic manifest signed by hand by the initial transporter, in lieu of executing the generator copy electronically, thereby enabling the transporter and subsequent waste handlers to execute the remainder of the manifest copies electronically.

2. [Reserved]

(d) Requirement for one printed copy. To the extent a paper document is required for compliance with 49 CFR § 177.817, a generator originating an electronic manifest must also provide the initial transporter with one printed copy of the electronic manifest.

(e) Special procedures when electronic manifest is unavailable. If a generator has prepared an electronic manifest for a hazardous waste shipment, but the electronic manifest system becomes unavailable for any reason prior to the time that the initial transporter has signed electronically to acknowledge the receipt of the hazardous waste from the generator, then the generator must obtain and complete a paper manifest, and, if necessary, a continuation sheet (EPA Forms 8700-22 and 8700-22A, if necessary) in accordance with the manifest instructions, and use these paper forms from this point forward in accordance with 335-14-3-.02(4).

(f) Special procedures for electronic signature methods undergoing tests. If a generator has prepared an electronic manifest for a hazardous waste shipment, and signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the generator shall also sign with an ink signature the generator/offeror certification on the printed copy of the manifest provided under 335-14-3-.02(5)(d).

(g) [Reserved].

(h) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person (e.g., waste handler) named on the manifest. Generators may participate electronically in the post-receipt data corrections process by following the process described in 335-14-5-.05(2)(l), which applies to corrections made to either paper or electronic manifest records.

(6) [Reserved].

(7) Waste minimization certification. A generator who initiates a shipment of hazardous waste must certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:

(a) "I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment."; or

(b) "I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

Authors: Stephen C. Maurer; Michael B. Champion; C. Edwin Johnston; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Metz Duites; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-14, 22-30-17.
History: November 19, 1980. **Amended:** Effective: April 9, 1986; **Amended:** Effective: September 29, 1986; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: March 30, 2010; **Amended:** Effective: March 31, 2011; **Amended:** Effective: March 31 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-3-.03 Pre-Transport Requirements Applicable to Small and Large Quantity Generators.

(1) Packaging. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable United States Department of Transportation regulations on packaging under 49 CFR Parts 173, 178, and 179. Failure to properly package the waste in accordance with the applicable United States Department of Transportation regulations is a violation of 335-14-3-.03(1).

(2) Labeling. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the

applicable United States Department of Transportation regulations on hazardous materials under 49 CFR Part 172. Failure to properly label the waste in accordance with the applicable United States Department of Transportation regulations is a violation of 335-14-3-.03(2).

(3) Marking.

(a) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable United States Department of Transportation regulations on hazardous materials under 49 CFR Part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 119 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR §172.304:

1. HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

2. Generator's Name and Address _____

3. Generator's EPA Identification Number _____

4. Manifest Tracking Number _____

5. EPA Hazardous Waste Number (s) _____

(c) A generator may use a nationally recognized electronic system, such as bar coding, to identify the EPA Hazardous Waste Number(s), as required by paragraph (b)(5) or paragraph (d).

(d) Lab packs that will be incinerated in compliance with 335-14-9-.04(3) are not required to be marked with EPA Hazardous Waste Number(s), except D004, D005, D006, D007, D008, D010, and D011, where applicable.

(4) Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR Part 172, Subpart F.

(5) [Reserved].

Authors: Stephen C. Maurer; Amy P. Zachry; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Kelley Lockhart; Heather M. Jones; Marlon D. McMillan; James K. Burgess; Metz P. Duites; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-12, 22-30-14.
History: November 19, 1980.

Amended: September 29, 1986; February 15, 1988; August 24, 1989; December 6, 1990; January 25, 1992; January 1, 1993; January 5, 1995; January 12, 1996; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; March 31, 2005; April 4, 2006; April 3, 2007; May 27, 2008; March 31, 2009; March 30, 2011; April 3, 2012; April 8, 2016; March 31, 2017; April 6, 2018.

335-14-3-.04 Recordkeeping and Reporting Applicable to Small and Large Generators.

(1) Recordkeeping.

(a) A generator must keep a copy of each manifest signed in accordance with 335-14-3-.02(4)(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator must keep a copy of each Biennial Report, Exception Report, and Closure Report for a period of at least three years from the due date of the report.

(c) See 335-14-3-.01(2)(f) for recordkeeping requirement for documenting hazardous waste determinations.

(d) The periods of retention referred to in 335-14-3-.04(1) are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Department.

(e) All records, including plans, required under 335-14-3 must be furnished upon request, and made available at reasonable times for inspection by any officer, employee, or representative of the Department.

(2) Biennial report for large quantity generators.

(a) A generator that is a large quantity generator for at least one month of an odd-numbered year (reporting year) who ships any hazardous waste off-site to a treatment, storage, or disposal facility within the United States must prepare and submit a single copy of a Biennial Report to the Department by March 1 of each even numbered year. The Biennial Report must be submitted on the Hazardous Waste Generator Biennial Report form supplied by the Department and must cover generator activities during the previous calendar year and must include the following information:

1. The EPA identification number, name, and address of the generator;

2. The calendar year covered by the report;

3. The EPA identification number, name, and location address for each off-site treatment, storage, or disposal facility in the United States to which waste was shipped during the year;

4. The name and EPA identification number of each transporter used during the reporting year for shipments to a treatment, storage, or disposal facility within the United States;

5. A description, EPA hazardous waste number, United States Department of Transportation hazard class, and quantity of each hazardous waste shipped off-site for shipments to a treatment, storage, or disposal facility within the United States. This information must be listed by EPA identification number of each such off-site facility to which waste was shipped;

6. A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

7. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

8. The certification signed by the generator or authorized representative; and

9. Any other information requested in the instructions to the Hazardous Waste Generator Biennial Report form.

(b) Any generator that is a large quantity generator for at least one month of an odd-numbered year (reporting year) who treats, stores, or disposes of hazardous waste on-site must submit a biennial report covering those wastes in accordance with the provisions of Chapters 335-14-5, 335-14-6, 335-14-7, and 335-14-8. This requirement also applies to large quantity generators that receive hazardous waste from very small quantity generators pursuant to 335-14-3-.01(7)(f).

(c) Exports of hazardous waste to foreign countries are not required to be reported on the Biennial Report form. A separate annual report requirement is set forth in 335-14-3-.09(4).

(3) <u>Exception reporting</u>.

(a)1. A large quantity generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.

2. A large quantity generator must submit an Exception Report to the Department if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery; and

(ii) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(b) A small quantity generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the Department.

(c) A generator must notify the Department in writing within 15 days after receiving a manifest that was the subject of a previous Exception Report submitted to the Department. This notification must include a legible copy of the manifest returned to the generator by the designated facility.

(d) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are forwarded to an alternate facility by a designated facility using a new manifest [following the procedures of 335-14-5-.05(3)(e)1. through 6. or 335-14-6-.05(3)(e)1. through 6.] the generator must comply with the requirements of 335-14-3-.04(3)(a) or (b), as applicable, for the shipment forwarding the material from the designated facility to the alternate facility instead of for the shipment from the generator to the designated facility. For purposes of 335-14-3-.04(3)(a) or (b) for a shipment forwarding such waste to an alternate facility by a designated facility:

1. The copy of the manifest received by the generator must have the handwritten signature of the owner or operator of the alternate facility in place of the signature of the owner or operator of the designated facility, and

2. The 35-, 45-, and 60-day timeframes begin the date the waste was accepted by the initial transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

(4) Additional reporting. The Department, as it deems necessary, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in Chapter 335-14-2.

(5) Recordkeeping for small quantity generators. A small quantity generator is subject only to the following independent requirements in 335-14-3-.04:

(a) 335-14-3-.04(1)(a), (c),(d), and (e), recordkeeping;

(b) 335-14-3-.04(3)(b), exception reporting; and

(c) 335-14-3-.04(4), additional reporting.

Authors: Stephen C. Maurer; Michael B. Champion; C. Edwin Johnston; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Metz Duites; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.

Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-14, 22-30-17, 22-30-18.
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; March 28, 1997; April 13, 2001; March 31, 2005; April 4, 2006; April 3, 2007; May 27, 2008; March 31, 2009; March 31, 2011; March 31, 2017; April 6, 2018; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-3-.05 [Reserved].

335-14-3-.06 [Reserved].

335-14-3-.07 Farmers.

(1) A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in 335-14-3 or other standards in Chapters 335-14-5, 335-14-6, 335-14-8, or 335-14-9 for those wastes provided he triple rinses each emptied pesticide container in accordance with 335-14-2-.01(7)(b)3. and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

(2) [Reserved].

Authors: Stephen C. Maurer; C. Edwin Johnston; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-39-11, 22-30-14.
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; April 13, 2001; April 6, 2018.

335-14-3-.08 Special Requirements for Generators of Waste Destined for Disposal at Commercial Hazardous Waste Disposal Facilities Located in the State of Alabama.

(1) Applicability. 335-14-3-.08 applies to generators of waste destined for disposal at a commercial hazardous waste disposal facility located in the State of Alabama.

(2) [Reserved].

(3) Disposal Requirements. All generators (directly or through their authorized agents) identified in 335-14-3-.08(1) must submit an adequate notification, meeting the requirements of 335-14-3-.08(5)(a), to the Department prior to disposal of any waste stream at a commercial hazardous waste disposal facility located in the State of Alabama. A commercial hazardous waste disposal facility located in the State of Alabama may not dispose of wastes from any generator that has not submitted an adequate notification to the Department.

(a) No waste may be disposed of at a commercial hazardous waste disposal facility in the State of Alabama sooner than five (5) working days following the Department's receipt of notification unless the Department has previously advised the disposal facility, via mail and/or electronic transmission, of its acceptance of the notification.

(b) If, after five (5) working days following receipt of the notification, the Department fails to advise the generator, his authorized agent, and/or the designated commercial hazardous waste disposal facility of either the Department's acceptance of the notification or of a determination that the notification is inadequate, the disposal facility may, at its discretion, dispose of the waste.

(c) If, at any time during the five (5) working days following receipt of a notification, the Department determines that the notification is inadequate, in accordance with 335-14-3-.08(6), the Department will provide notice of the deficiency to the commercial hazardous waste disposal facility and/or the generator or his authorized agent. After notification from the Department of a deficient disposal request, the generator or his authorized agent may not dispose of the proposed waste until the deficiency is resolved to the satisfaction of the Department.

(d) If, at any time after disposal approval is granted or after five (5) working days following receipt of a notification, the Department determines that the notification is inadequate, in accordance with 335-14-3-.08(6), the Department will immediately provide notice of the deficiency to the disposal facility and/or the generator or his authorized agent. Following receipt of the Department's notice of an inadequate notification, further shipments of the waste stream in question may not be disposed of by the commercial hazardous waste disposal facility until the deficiency is resolved to the satisfaction of the Department.

(4) Submittal of notification. The notification required by 335-14-3-.08 may be submitted by the generator, the generator's authorized agent or the commercial hazardous waste disposal facility using ADEM Form 278 (Disposal Approval Request) or an equivalent form.

(5) Disposal approval. To obtain disposal approval the generator, the generator's authorized agent, or the commercial hazardous waste disposal facility must submit an adequate notification, in accordance with 335-14-3-.08(4), to the Department prior to disposal of the waste.

(a) The notification shall include:

1. All information required by ADEM Form 278.

2. A description of the waste which will enable the Department to determine whether the waste is a hazardous waste. This must include a detailed and complete description of the process generating the waste, and where applicable:

(i). A detailed chemical and physical analysis, including Toxicity Characteristic Leaching Procedure (TCLP), where needed. In accordance with 335-14-3-.01(2)(d)1., the generator may rely on his knowledge of waste generated in determining the extent and

types of analytical data supplied to the Department. The commercial hazardous waste disposal facility may also rely on the generator's knowledge in determining the sufficiency and accuracy of the information provided. However, the Department will make the final determination of whether a notification is complete and accurate; and

(ii). A complete list of all applicable hazardous waste codes.

3. A Land Disposal Restrictions Notification or Certification form, if applicable; and

4. All applicable fees as specified in Chapter 335-1-6 of the ADEM Administrative Code.

(b) Unless the Department determines that the generator's information is false, incomplete, or inaccurate, it shall accept such information as meeting the requirements of 335-14-3-.08. The Department's acceptance of the generator's or commercial hazardous waste disposal facility's information does not relieve the generator or commercial hazardous waste disposal facility of the responsibility for complying with the requirements under Division 335-14 or other federal, State of Alabama or local requirements.

(c) All disposal approvals shall remain valid for up to two (2) years unless new information becomes available which would render the notification inadequate under 335-14-3-.08(3)(d).

(6) Deficient Notification. The generator, his authorized agent, and/or the designated commercial hazardous waste disposal facility shall within five (5) working days of receipt of notification be advised by the Department in writing and/or electronic transmission of any deficiencies in the notification.

(7) Adequate Notification. A notification from the generator, the generator's authorized agent, or a commercial hazardous waste disposal facility, which meets the requirements of 335-14-3-.08(5)(a) and has not been determined to be false, incomplete, or inaccurate as indicated in 335-14-3-.08(5)(b) shall be deemed adequate. Adequate notifications will be assigned unique certification numbers as approval for disposal for the waste at the specified commercial hazardous waste disposal facility.

(8) Rejection of Notification.

(a) A notification may be rejected by the Department if:

1. It is determined by the Department that any applicable requirements of any federal, State of Alabama, or local laws or regulations would be violated if the waste is disposed of; or

2. It is determined that the waste is prohibited from land disposal as outlined in Chapter 335-14-9 and the notification does not indicate that the prescribed treatment standards will be met; or

3. The commercial hazardous waste disposal facility has not obtained a Hazardous Waste Permit or does not have interim status authorization to dispose of the waste; or

4. The notification is the subject of an inadequate determination as described in 335-14-3-.08(3)(c) or (d) and 335-14-3-.08(6), and the deficiency has not been reconciled or the information has not been provided to the Department within fifteen (15) calendar days following the notice of an inadequate notification or the request for additional information.

(b) Within two (2) working days following the Department's decision to reject a notification, the generator and/or his authorized agent, and the disposal facility will be notified in writing and/or electronically of the rejection.

(9) Recertification.

(a) A recertification of the initial notification is required biennially (every 2 years) unless:

1. Regulations promulgated since the previous notification have changed the regulatory status of the waste stream; or

2. The process generating the waste, the waste description, or the chemical composition of the waste stream has changed since the previous recertification or initial notification such that new constituents are present or the physical characteristics of the waste stream have changed in a manner which will alter the management method or the regulatory status of the waste stream.

(b) In the case of either 335-14-3-.08(9)(a)1. or 2., the recertification which identifies those changes requiring recertification will be made within five (5) working days prior to disposal of any of the waste which is subject to such change.

1. A recertification will not be necessary for incidental or temporary changes to an approved waste stream which result in "discrepant" waste when the discrepancy is addressed as described in 335-14-5-.05(3)(c). Such changes may include, but are not limited to accumulation of precipitation, process upsets which temporarily change the characteristics of the waste, temporary additions of similar waste, or instances where the waste does not conform in every respect to the waste which was originally approved, but is representative of the waste as generated.

2. The Department may in its discretion allow the commercial hazardous waste disposal facility to receive waste subject to such change prior to completion and submittal of the recertification. These submittals will be treated as modifications to an approved waste stream subject to Departmental review and potential rejection under 335-14-3-.08(8).

(10) Emergency Authorization for Disposal. The Department may grant emergency authorization for disposal if the generator (or responsible party in the case of an emergency cleanup) can demonstrate that a delay in disposal could cause a

situation that could cause harm to human health or the environment. To receive emergency authorization for disposal, the generator or responsible party must:

(a) Notify the Department by calling the Land Division at (334) 271-7700 and provide sufficient information to grant emergency authorization for disposal.

(b) Within 15 calendar days submit a complete ADEM Form 278 (Disposal Approval Request) to the Department.

(11) Special Requirements for Brokers of Waste.

(a) For all wastes included in both bulked waste streams and consolidated waste streams, the process generating each individual waste stream must be identified in the notification. For the purpose of completing the notification or the shipping manifest only, the broker may be identified as the waste generator.

(b) Wastes included in a bulked waste stream must be similar in physical form (i.e., solid or liquid) and have similar hazardous constituents. Wastes included in a consolidated waste stream must have similar hazardous constituents.

(c) Any broker of waste may be required by the Department to submit for ADEM's review a list of all generators (including name and EPA identification number) contributing waste to a specific shipment of a bulked or consolidated waste stream. Each broker who either consolidates or bulks waste for shipment for disposal at a commercial hazardous waste landfill in the State of Alabama must submit to the Department certification that it has in place a tracking system capable of providing such information for each shipment of bulked or consolidated waste, and that such information will be provided to the Department upon request. This certification must be renewed annually by the broker.

[**Note:** An example of an acceptable bulked or consolidated waste stream includes F006, K061, and K106. These wastes are similar in physical form and are all listed due to the presence of toxic metals.]

Authors: William K. Mullins II; Steven O. Jenkins; Amanda G. Hawkins; Lynn T. Roper; Robert W. Barr; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Heather M. Jones; Metz P. Duites; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-14.
History: August 24, 1989.
Amended: December 21, 1989; December 6, 1990; April 2, 1991; January 5, 1995; January 12, 1996; March 8, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 15, 2002; April 17, 2003; March 31, 2005; March 30, 2010; April 3, 2012; March 31, 2015; March 31, 2017; April 6, 2018.

335-14-3-.09 Transboundary Movements of Hazardous Waste for Recovery or Disposal

The Environmental Protection Agency Regulations 40 CFR Part 262 Subpart H as published and amended by EPA on November 28, 2016 and December 26, 2017 (unless otherwise noted) are incorporated herein by reference.

In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR 262 Subpart H, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(1) 40 CFR 262.80 Applicability.

(2) 40 CFR 262.81 Definitions**.**

(3) 40 CFR 262.82 General conditions.

(4) 40 CFR 262.83 Exports of hazardous waste.

(5) 40 CFR 262.84 Imports of hazardous waste.

(6) 40 CFR 262.85 [Reserved].

(7) 40 CFR 262.86 [Reserved].

(8) 40 CFR 262.87 [Reserved].

(9) 40 CFR 262.88 [Reserved].

(10) 40 CFR 262.89 [Reserved].

Authors: Amy P. Zachry; Michael B. Champion; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Metz Duites; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-14.
History: March 28, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 13, 2001; **Amended:** Effective: April 17, 2003; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: March 31, 2009; **Amended:** Effective: March 31, 2011; **Amended:** Effective: March 26, 2013; **Amended:** Effective: March 31, 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-3-.10 [Reserved]

335-14-3-.11 [Reserved]

335-14-3-.12 <u>Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities</u>.

(1) **[Reserved].**

(2) <u>Applicability</u>.

(a) <u>Large quantity generators and small quantity generators</u>. 335-14-3-.12 provides alternative requirements to the requirements in 335-14-3-.01(2) and 335-14-3-.01(5) for the hazardous waste determination and accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to 335-14-3-.12, provided that they complete the notification requirements of 335-14-3-.12(4).

(b) <u>Very small quantity generators</u>. 335-14-3-.12 provides alternative requirements to the conditional exemption in 335-14-3-.01(4) for the accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to 335-14-3-.12, provided that they complete the notification requirements of 335-14-3-.12(4).

(3) <u>335-14-3-.12 is optional</u>.

(a) <u>Large quantity generators and small quantity generators</u>. Eligible academic entities have the option of complying with 335-14-3-.12 with respect to their laboratories, as an alternative to complying with the requirements of 335-14-3-.01(2) and 335-14-3-.01(5).

(b) <u>Very small quantity generators</u>. Eligible academic entities have the option of complying with 335-14-3-.12 with respect to their laboratories, as an alternative to complying with the conditional exemption of 335-14-3-.01(4).

(4) How an eligible academic entity indicates it will be subject to the requirements of 335-14-3-.12.

(a) An eligible academic entity must notify the Department in writing, using the ADEM Form 8700-12, that it is electing to be subject to the requirements of 335-14-3-.12 for all the laboratories owned by the eligible academic entity under the same EPA identification number. An eligible academic entity that is a very small quantity generator and does not have an EPA identification number must notify that it is electing to be subject to the requirements of 335-14-3-.12 for all the laboratories owned by the eligible academic entity that are on-site as defined in 335-14-1-.02. An eligible academic entity must submit a separate notification (ADEM Form 8700-12) for each EPA identification number (or site, for very small quantity generators) that is electing to be subject to the requirements of 335-14-3-.12, and must submit ADEM Form 8700-12 before it begins operating under 335-14-3-.12.

(b) When submitting ADEM Form 8700-12, the eligible academic entity must, at a minimum, fill out the following fields on the form:

1. Notification Class.

2. Facility's EPA identification number (except for very small quantity generators).

3. Operating Name of Facility.

4. Location of Facility.

5. Facility Contact.

6. Facility Mailing Address.

7. North American Industry Classification System (NAICS) Code(s).

8. Ownership.

9. Land Type.

10. Certification Status.

11. Certification.

(c) An eligible academic entity must keep a copy of the notification on file at the eligible academic entity for as long as its laboratories are subject to 335-14-3-.12.

(d) A teaching hospital that is not owned by a college or university must keep a copy of its formal written affiliation agreement with a college or university on file at the teaching hospital for as long as its laboratories are subject to 335-14-3-.12.

(e) A non-profit research institute that is not owned by a college or university must keep a copy of its formal written affiliation agreement with a college or university on file at the non-profit research institute for as long as its laboratories are subject to 335-14-3-.12.

(5) <u>How an eligible academic entity indicates it will withdraw from the requirements of 335-14-3-.12</u>.

(a) An eligible academic entity must notify the Department in writing, using ADEM Form 8700-12, that it is electing to no longer be subject to the requirements of 335-14-3-.12 for all the laboratories owned by the eligible academic entity under the same EPA identification number and that it will comply with the requirements of 335-14-3-.01(2) and 335-14-3-.01(5) for small quantity generators and large quantity generators. An eligible academic entity that is a very small quantity generator and does not have an EPA identification number must notify that it is withdrawing from the requirements of 335-14-3-.12 for all the laboratories owned by the eligible academic entity that are on-site and that it will comply with the conditional exemption in 335-14-3-.01(4). An eligible academic entity must submit a separate notification (ADEM Form 8700-12) for each EPA identification number (or site, for very small quantity generators) that is withdrawing from the requirements of 335-14-3-.12 and must submit ADEM

Form 8700-12 before it begins operating under the requirements of 335-14-3-.01(2) and 335-14-3-.01(5) for small quantity generators and large quantity generators, or 335-14-3-.01(4) for very small quantity generators.

(b) When submitting ADEM Form 8700-12, the eligible academic entity must, at a minimum, fill out the following fields on the form:

1. Notification class.

2. Facility's EPA identification number (except for very small quantity generators).

3. Operating name of facility.

4. Location of facility.

5. Facility contact.

6. Facility mailing address.

7. North American Industry Classification System (NAICS) code(s).

8. Ownership.

9. Land type.

10. Certification status.

11. Certification.

(c) An eligible academic entity must keep a copy of the withdrawal notice on file at the eligible academic entity for three years from the date of the notification.

(6) Summary of the requirements of 335-14-3-.12. An eligible academic entity that chooses to be subject to 335-14-3-.12 is not required to have interim status or a RCRA Part B permit for the accumulation of unwanted material and hazardous waste in its laboratories, provided the laboratories comply with the provisions of 335-14-3-.12 and the eligible academic entity has a Laboratory Management Plan (LMP) in accordance with 335-14-3-.12(15) that describes how the laboratories owned by the eligible academic entity will comply with the requirements of 335-14-3-.12.

(7) Labeling and management standards for containers of unwanted material in the laboratory. An eligible academic entity must manage containers of unwanted material while in the laboratory in accordance with the requirements in this section.

(a) Labeling. Label unwanted material as follows:

1. The following information must be affixed or attached to the container:

(i) The words "unwanted material" or another equally effective term that is to be used consistently by the eligible academic entity and that is identified in Part I of the Laboratory Management Plan, and

(ii) Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include, but are not limited to:

a. The name of the chemical(s),

b. The type or class of chemical, such as organic solvents or halogenated organic solvents.

2. The following information may be affixed or attached to the container, but must at a minimum be associated with the container:

(i) The date that the unwanted material first began accumulating in the container, and

(ii) Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid and hazardous waste and to assign the proper hazardous waste code(s), pursuant to 335-14-3-.01(2). Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include, but are not limited to:

a. The name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction,

b. Whether the unwanted material has been used or is unused,

c. A description of the manner in which the chemical was produced or processed, if applicable.

(b) Management of containers in a laboratory. An eligible academic entity must properly manage containers of unwanted material in the laboratory to assure safe storage of the unwanted material, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Proper container management must include the following:

1. Containers are maintained and kept in good condition and damaged containers are replaced, overpacked, or repaired, and

2. Containers are compatible with their contents to avoid reactions between the contents and the container; and are made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired, and

3. Containers must be kept closed at all times, except:

(i) When adding, removing, or bulking unwanted material, or

(ii) A working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time the working container must either be closed or the contents emptied into a separate container that is then closed, or

(iii) When venting of a container is necessary:

a. For the proper operation of laboratory equipment, such as with inline collection of unwanted materials from high performance liquid chromatographs, or

b. To prevent dangerous situations, such as build-up of extreme pressure.

(8) Training. An eligible academic entity must provide training to all individuals working in a laboratory at the eligible academic entity, as follows:

(a) Training for laboratory workers and students must be commensurate with their duties so they understand the requirements of 335-14-3-.12 and can implement them.

(b) An eligible academic entity can provide training for laboratory workers and students in a variety of ways, including, but not limited to:

1. Instruction by the professor or laboratory manager before or during an experiment; or

2. Formal classroom training; or

3. Electronic/written training; or

4. On-the-job training; or

5. Written or oral exams.

(c) An eligible academic entity that is a large quantity generator must maintain documentation for the durations specified in 335-14-6-.02(7)(e) demonstrating training for all laboratory workers that is sufficient to determine whether laboratory workers have been trained. Examples of documentation demonstrating training can include, but are not limited to, the following:

1. Sign-in/attendance sheet(s) for training session(s); or

2. Syllabus for training session; or

3. Certificate of training completion; or

4. Test results.

(d) A trained professional must:

1. Accompany the transfer of unwanted material and hazardous waste when the unwanted material and hazardous waste is removed from the laboratory, and

2. Make the hazardous waste determination, pursuant to 335-14-3-.01(2) for unwanted material.

(9) Removing containers of unwanted material from the laboratory.

(a) Removing containers of unwanted material on a regular schedule. An eligible academic entity must either:

1. Remove all containers of unwanted material from each laboratory on a regular interval, not to exceed 6 months; or

2. Remove containers of unwanted material from each laboratory within 6 months of each container's accumulation start date.

(b) The eligible academic entity must specify in Part I of its Laboratory Management Plan whether it will comply with 335-14-3-.12(9)(a)1. or 2. for the regular removal of unwanted material from its laboratories.

(c) The eligible academic entity must specify in Part II of its Laboratory Management Plan how it will comply with 335-14-3-.12(9)(a)1. or 2. and develop a schedule for regular removals of unwanted material from its laboratories.

(d) Removing containers of unwanted material when volumes are exceeded.

1. If a laboratory accumulates a total volume of unwanted material (including reactive acutely hazardous unwanted material) in excess of 55 gallons before the regularly scheduled removal, the eligible academic entity must ensure that all containers of unwanted material in the laboratory (including reactive acutely hazardous unwanted material):

(i) Are marked on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) with the date that 55 gallons is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 55 gallons was exceeded, or at the next regularly scheduled removal, whichever comes first.

2. If a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material before the regularly scheduled removal, then the eligible academic entity must ensure that all containers of reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) with the date that 1 quart is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 1 quart was exceeded, or at the next regularly scheduled removal, whichever comes first.

(10) Where and when to make the hazardous waste determination and where to send containers of unwanted material upon removal from the laboratory.

(a) Large quantity generators and small quantity generators. An eligible academic entity must ensure that a trained professional makes a hazardous waste determination, pursuant to 335-14-3-.01(2), for unwanted material in any of the following areas:

1. In the laboratory before the unwanted material is removed from the laboratory, in accordance with 335-14-3-.12(11);

2. Within 4 calendar days of arriving at an on-site central accumulation area, in accordance with 335-14-3-.12(12); and

3. Within 4 calendar days of arriving at an on-site interim status or permitted treatment, storage, or disposal facility, in accordance with 335-14-3-.12(13).

(b) Very small quantity generators. An eligible academic entity must ensure that a trained professional makes a hazardous waste determination, pursuant to 335-14-3-.01(2), for unwanted material in the laboratory before the unwanted material is removed from the laboratory, in accordance with 335-14-3-.12(11).

(11) Making the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory. If an eligible academic entity makes the hazardous waste determination, pursuant to 335-14-3-.01(2), for unwanted material in the laboratory, it must comply with the following:

(a) A trained professional must make the hazardous waste determination, pursuant to 335-14-3-.01(2), before the unwanted material is removed from the laboratory.

(b) If an unwanted material is a hazardous waste, the eligible academic entity must:

1. Write the words “hazardous waste” on the container label that is affixed or attached to the container, before the hazardous waste may be removed from the laboratory; and

2. Write the appropriate hazardous waste code(s) on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste is transported off-site.

3. Count the hazardous waste toward the eligible academic entity's generator status, pursuant to 335-14-3-.01(3), in the calendar month that the hazardous waste determination was made.

(c) A trained professional must accompany all hazardous waste that is transferred from the laboratory(ies) to an on-site central accumulation area or on-site interim status or permitted treatment, storage, or disposal facility.

(d) When hazardous waste is removed from the laboratory:

1. Large quantity generators and small quantity generators must ensure it is taken directly from the laboratory(ies) to an on-site central accumulation area, or on-site interim status or permitted treatment, storage, or disposal facility, or transported off-site.

2. Very small quantity generators must ensure it is taken directly from the laboratory(ies) to any of the types of facilities listed in 335-14-3-.01(4).

(e) An unwanted material that is a hazardous waste is subject to all applicable hazardous waste regulations when it is removed from the laboratory.

(12) Making the hazardous waste determination at an on-site central accumulation area. If an eligible academic entity makes the hazardous waste determination, pursuant to 335-14-3-.01(2), for unwanted material at an on-site central accumulation area, it must comply with the following:

(a) A trained professional must accompany all unwanted material that is transferred from the laboratory(ies) to an on-site central accumulation area.

(b) All unwanted material removed from the laboratory(ies) must be taken directly from the laboratory(ies) to the on-site central accumulation area.

(c) The unwanted material becomes subject to the generator accumulation regulations of 335-14-3-.01(7) for large quantity generators or 335-14-3-.01(6) for small quantity generators as soon as it arrives in the central accumulation area, except for the "hazardous waste" labeling requirements of 335-14-3-.01(6)(b)6. and (7)(a)5.

(d) A trained professional must determine, pursuant to 335-14-3-.01(2), if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site central accumulation area.

(e) If the unwanted material is a hazardous waste, the eligible academic entity must:

1. Write the words ``hazardous waste'' on the container label that is affixed or attached to the container, within 4 calendar days of arriving at the on-site central accumulation area and before the hazardous waste may be removed from the on-site central accumulation area, and

2. Write the appropriate hazardous waste code(s) on the container label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste may be treated or disposed of on-site or transported off-site, and

3. Count the hazardous waste toward the eligible academic entity's generator status, pursuant to 335-14-3-.01(3) in the calendar month that the hazardous waste determination was made, and

4. Manage the hazardous waste according to all applicable hazardous waste regulations.

(13) Making the hazardous waste determination at an on-site interim status or permitted treatment, storage, or disposal facility. If an eligible academic entity makes the hazardous waste determination, pursuant to 335-14-3-.01(2), for unwanted material at an on-site interim status or permitted treatment, storage, or disposal facility, it must comply with the following:

(a) A trained professional must accompany all unwanted material that is transferred from the laboratory(ies) to an on-site interim status or permitted treatment, storage, or disposal facility.

(b) All unwanted material removed from the laboratory(ies) must be taken directly from the laboratory(ies) to the on-site interim status or permitted treatment, storage, or disposal facility.

(c) The unwanted material becomes subject to the terms of the eligible academic entity's hazardous waste permit or interim status as soon as it arrives in the on-site treatment, storage, or disposal facility.

(d) A trained professional must determine, pursuant to 335-14-3-.01(2), if the unwanted material is a hazardous waste within 4 calendar days of the unwanted material's arrival at an on-site interim status or permitted treatment, storage, or disposal facility.

(e) If the unwanted material is a hazardous waste, the eligible academic entity must:

1. Write the words ``hazardous waste'' on the container label that is affixed or attached to the container within 4 calendar days of arriving at the on-site interim status or permitted treatment, storage, or disposal facility and before the hazardous waste may be removed from the on-site interim status or permitted treatment, storage, or disposal facility, and

2. Write the appropriate hazardous waste code(s) on the container label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste may be treated or disposed on-site or transported off-site, and

3. Count the hazardous waste toward the eligible academic entity's generator status, pursuant to 335-14-3-.01(3) in the calendar month that the hazardous waste determination was made, and

4. Manage the hazardous waste according to all applicable hazardous waste regulations.

(14) Laboratory clean-outs.

(a) One time per 12 month period for each laboratory, an eligible academic entity may opt to conduct a laboratory clean-out that is subject to all the applicable requirements of 335-14-3-.12, except that:

1. If the volume of unwanted material in the laboratory exceeds 55 gallons (or 1 quart of liquid reactive acutely hazardous unwanted material or 1 kg of solid reactive acutely hazardous unwanted material), the eligible academic entity is not required to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons (or 1 quart of liquid reactive acutely hazardous unwanted material or 1 kg of solid reactive acutely hazardous unwanted material), as required by 335-14-3-.12(9). Instead, the eligible academic entity must remove all unwanted materials from the laboratory within 30 calendar days from the start of the laboratory clean-out; and

2. For the purposes of on-site accumulation, an eligible academic entity is not required to count a hazardous waste that is an unused commercial chemical product (listed in 335-14-2-.04 or exhibiting one or more characteristics in 335-14-2-.03) generated solely during the laboratory clean-out toward its hazardous waste generator status, pursuant to 335-14-3-.01(3). An unwanted material that is generated prior to the beginning of the laboratory clean-out and is still in the laboratory at the time the laboratory clean-out commences must be counted toward hazardous waste generator status, pursuant to 335-14-3-.01(3), if it is determined to be hazardous waste; and

3. For the purposes of off-site management, an eligible academic entity must count all its hazardous waste, regardless of whether the hazardous waste was counted toward generator status under 335-14-3-.12(14)(a)2., and if it generates more than 1 kg/month of acute hazardous waste or more than 100 kg/month of hazardous waste [i.e., the very small quantity generator limits as defined 335-14-1-.02], the hazardous waste is subject to all applicable hazardous waste regulations when it is transported off-site; and

4. An eligible academic entity must document the activities of the laboratory clean-out. The documentation must, at a minimum, identify the laboratory being cleaned out, the date the laboratory clean-out begins and ends, and the volume of hazardous waste generated during the laboratory clean-out. The eligible academic entity must maintain the records for a period of three years from the date the clean-out ends.

(b) For all other laboratory clean-outs conducted during the same 12-month period, an eligible academic entity is subject to all the applicable requirements of 335-14-3-.12, including, but not limited to:

1. The requirement to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons (or 1 quart of reactive acutely hazardous unwanted material), as required by 335-14-3-.12(9); and

2. The requirement to count all hazardous waste, including unused hazardous waste, generated during the laboratory clean-out toward its hazardous waste generator status, pursuant to 335-14-3-.01(3).

(15) Laboratory management plan. An eligible academic entity must develop and retain a written Laboratory Management Plan, or revise an existing written plan. The Laboratory Management Plan is a site-specific document that describes how the eligible academic entity will manage unwanted materials in compliance with 335-14-3-.12. An eligible academic entity may write one Laboratory Management Plan for all the laboratories owned by the eligible academic entity that have opted into 335-14-3-.12, even if the laboratories are located at sites with different EPA identification numbers. The Laboratory Management Plan must contain two parts with a total of nine elements identified in paragraphs (a) and (b) of this section. In Part I of its Laboratory Management Plan, an eligible academic entity must describe its procedures for each of the elements listed in paragraph (a) of this section. An eligible academic entity must implement and comply with the specific provisions that it develops to address the elements in Part I of the Laboratory Management Plan. In Part II of its Laboratory Management Plan, an eligible academic entity must describe its best management practices for each of the elements listed in paragraph (b) of this section. The specific actions taken by an eligible academic entity to implement each element in Part II of its Laboratory Management Plan may vary from the procedures described in the eligible academic entity's Laboratory Management Plan, without constituting a violation of 335-14-3-.12. An eligible academic entity may include additional elements and best management practices in Part II of its Laboratory Management Plan if it chooses.

(a) The eligible academic entity must implement and comply with the specific provisions of Part I of its Laboratory Management Plan. In Part I of its Laboratory Management Plan, an eligible academic entity must:

1. Describe procedures for container labeling in accordance with 335-14-3-.12(7)(a), as follows:

(i) Identifying whether the eligible academic entity will use the term “unwanted material” on the containers in the laboratory. If not, identify an equally effective term that will be used in lieu of “unwanted material” and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as “unwanted material.”

(ii) Identifying the manner in which information that is “associated with the container” will be imparted.

2. Identify whether the eligible academic entity will comply with 335-14-3-.12(9)(a)1. or (a)2. for regularly scheduled removals of unwanted material from the laboratory.

(b) In Part II of its Laboratory Management Plan, an eligible academic entity must:

1. Describe its intended best practices for container labeling and management, (see the required standards at 335-14-3-.12(7)).

2. Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties (see the required standards at 335-14-3-.12(8)(a)).

3. Describe its intended best practices for providing training to ensure safe on-site transfers of unwanted material and hazardous waste by trained professionals (see the required standards at 335-14-3-.12(8)(d)1.).

4. Describe its intended best practices for removing unwanted material from the laboratory, including:

(i) For regularly scheduled removals. Develop a regular schedule for identifying and removing unwanted materials from its laboratories (see the required standards at 335-14-3-.12(9)(a)1. and (a)2.).

(ii) For removals when maximum volumes are exceeded:

(I) Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes (see the required standards at 335-14-3-.12(9)(d)).

(II) Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

5. Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process (see the required standards at 335-14-3-.01(2) and 335-14-3-.12(10) through 335-14-3-.12(13)).

6. Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in 335-14-3-.12(14), including:

(i) Procedures for conducting laboratory clean-outs (see the required standards at 335-14-3-.12(14)(a)1. through 3.); and

(ii) Procedures for documenting laboratory clean-outs (see the required standards at 335-14-3-.12(14)(a)4.).

7. Describe its intended best practices for emergency prevention, including:

(i) Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory; and

(ii) A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iii) Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iv) Procedures for the timely characterization of unknown chemicals.

(c) An eligible academic entity must make its Laboratory Management Plan available to laboratory workers, students, or any others at the eligible academic entity who request it.

(d) An eligible academic entity must review and revise its Laboratory Management Plan, as needed.

(16) Unwanted material that is not solid or hazardous waste.

(a) If an unwanted material does not meet the definition of solid waste in 335-14-2-.01(2), it is no longer subject to 335-14-3-.12 or to the RCRA hazardous waste regulations.

(b) If an unwanted material does not meet the definition of hazardous waste in 335-14-2-.01(3), it is no longer subject to 335-14-3-.12 or to the RCRA hazardous waste regulations, but must be managed in compliance with any other applicable regulations and/or conditions.

(17) Non-laboratory hazardous waste generated at an eligible academic entity. An eligible academic entity that generates hazardous waste outside of a laboratory is not eligible to manage that hazardous waste under 335-14-3-.12; and

(a) Remains subject to the generator requirements of 335-14-3-.01(2) and 335-14-3-.01(5) for large quantity generators and small quantity generators (if the hazardous waste is managed in a satellite accumulation area), and all other applicable generator requirements of 335-14-3, with respect to that hazardous waste; or

(b) Remains subject to the conditional exemption of 335-14-3-.01(4) for very small quantity generators, with respect to that hazardous waste.

Author: Heather M. Jones; Metz Duites; Vernon H. Crockett
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335-14-3-.13 Alternative Standards for Episodic Generation

(1) Applicability. 335-14-3-.13 is applicable to very small quantity generators and small quantity generators as defined in 335-14-1-.02.

(2) [Reserved].

(3) Conditions for a generator managing hazardous waste from an episodic event.

(a) Very small quantity generator. A very small quantity generator may maintain its existing generator category for hazardous waste generated during an episodic event provided that the generator complies with the following conditions:

1. The very small quantity generator is limited to one episodic event per calendar year, unless a petition is granted under 335-14-3-.13(4);

2. Notification. The very small quantity generator must notify the Department no later than thirty (30) calendar days prior to initiating a planned episodic event using ADEM Form 8700-12. In the event of an unplanned episodic event, the generator must notify the Department within 72 hours of the unplanned event via phone, email, or fax and submit ADEM Form 8700-12 no later than thirty (30) calendar days following the unplanned event. The generator shall include the start date and end date of the episodic event, the reason(s) for the event, types and estimated quantities of hazardous waste expected to be generated as a result of the episodic event, and shall identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to an emergency in compliance with 335-14-3-.01(6)(b)9.(i);

3. EPA ID Number. The very small quantity generator must have an EPA identification number or obtain an EPA identification number using ADEM Form 8700-12;

4. Accumulation. A very small quantity generator is prohibited from accumulating hazardous waste generated from an episodic event on drip pads and in containment buildings. When accumulating hazardous waste in containers and tanks the following conditions apply:

(i) Containers. A very small quantity generator accumulating in episodic hazardous waste containers must mark or label its containers with the following:

a. The words "Episodic Hazardous Waste" and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and

c. The date upon which the episodic event began, clearly visible for inspection on each container.

(ii) Tanks. A very small quantity generator accumulating episodic hazardous waste in tanks must do the following:

a. Mark or label the tank with the words "Episodic Hazardous Waste" and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. Mark or label its tanks with an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704);

c. Use inventory logs, monitoring equipment or other records to identify the date upon which each episodic event begins; and

d. Keep inventory logs or records with the above information on site and readily available for inspection.

(iii) Hazardous waste must be managed in a manner that minimizes the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to the air, soil, or water;

a. Containers must be in good condition and compatible with the hazardous waste being accumulated therein. Containers must be kept closed except to add or remove waste; and

b. Tanks must be in good condition and compatible with the hazardous waste accumulated therein. Tanks must have procedures in place to prevent the overflow (e.g., be equipped with a means to stop inflow with systems such as a waste feed cutoff system or bypass system to a standby tank when hazardous waste is continuously fed into the tank). Tanks must be inspected at least once each operating day to ensure all applicable discharge control equipment, such as waste feed cutoff systems, bypass systems, and drainage systems are in good working order and to ensure the tank is operated according to its design by reviewing the data gathered from monitoring equipment such as pressure and temperature gauges from the inspection.

5. The very small quantity generator must comply with the hazardous waste manifest provisions of 335-14-3-.02 when it sends its episodic event hazardous waste off site to a designated facility, as defined in 335-14-1-.02.

6. The very small quantity generator has up to sixty (60) calendar days from the start of the episodic event to manifest and send its hazardous waste generated from the episodic event to a designated facility, as defined in 335-14-1-.02.

7. Very small quantity generators must maintain the following records for three (3) years from the end date of the episodic event:

(i) Beginning and end dates of the episodic event;

(ii) A description of the episodic event;

(iii) A description of the types and quantities of hazardous wastes generated during the event;

(iv) A description of how the hazardous waste was managed as well as the name of the RCRA-designated facility that received the hazardous waste;

(v) Name(s) of hazardous waste transporters; and

(vi) An approval letter from the Department if the generator petitioned to conduct one additional episodic event per calendar year.

(b) Small quantity generators. A small quantity generator may maintain its existing generator category during an episodic event provided that the generator complies with the following conditions:

1. The small quantity generator is limited to one episodic event per calendar year unless a petition is granted under 335-14-3-.13(4);

2. Notification. The small quantity generator must notify the Department no later than thirty (30) calendar days prior to initiating a planned episodic event using ADEM Form 8700-12. In the event of an unplanned episodic event, the small quantity generator must notify the Department within 72 hours of the unplanned event via phone, email, or fax, and submit ADEM Form 8700-12 no later than thirty (30) calendar days following the unplanned event. The small quantity generator shall include the start date and end date of the episodic event and the reason(s) for the event, types and estimated quantities of hazardous wastes expected to be generated as a result of the episodic event, and identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to emergency;

3. EPA ID Number. The small quantity generator must have an EPA identification number or obtain an EPA identification number using EPA Form 8700-12; and

4. Accumulation by small quantity generators. A small quantity generator is prohibited from accumulating hazardous wastes generated from an episodic event waste on drip pads and in containment buildings. When accumulating hazardous waste generated from an episodic event in containers and tanks, the following conditions apply:

(i) Containers. A small quantity generator accumulating episodic hazardous waste in containers must meet the standards at 335-14-3-.01(6)(b)2. and must mark or label its containers with the following:

a. The words “Episodic Hazardous Waste” and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

a chemical hazard label consistent with the National Fire Protection Association code 704); and

c. The date upon which the episodic event began, clearly visible for inspection on each container.

(ii) Tanks. A small quantity generator accumulating episodic hazardous waste in tanks must meet the standards at 335-14-3-.01(6)(b)3. and must do the following:

a. Mark or label its tank with the words "Episodic Hazardous Waste" and all appropriate EPA hazardous waste numbers associated with the waste as specified in 335-14-2-.03 and 335-14-2-.04;

b. Mark or label its tanks with an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704);

c. Use inventory logs, monitoring equipment or other records to identify the date upon which each period of accumulation begins and ends; and

d. Keep inventory logs or records with the above information on site and available for inspection.

5. The small quantity generator must manifest and ship hazardous waste generated from an episodic event off site to a designated facility (as defined in 335-14-1-.02) within sixty (60) calendar days from the start of the episodic event.

6. The small quantity generator must maintain the following records for three (3) years from the end date of the episodic event:

(i) Beginning and end dates of the episodic event;

(ii) A description of the episodic event;

(iii) A description of the types and quantities of hazardous wastes generated during the event;

(iv) A description of how the hazardous waste was managed as well as the name of the designated facility (as defined in 335-14-1-.02) that received the hazardous waste;

(v) Name(s) of hazardous waste transporters; and

(vi) An approval letter from the Department if the generator petitioned to conduct one additional episodic event per calendar year.

(4) Petition to manage one additional episodic event per calendar year.

(a) A generator may petition the Department for a second episodic event in a calendar year without impacting its generator category under the following conditions:

1. If a very small quantity generator or small quantity generator has already held a planned episodic event in a calendar year, the generator may petition the Department for an additional unplanned episodic event in that calendar year within 72 hours of the unplanned event.

2. If a very small quantity generator or small quantity generator has already held an unplanned episodic event in a calendar year, the generator may petition the Department for an additional planned episodic event in that calendar year.

(b) The petition must include the following:

1. The reason(s) why an additional episodic event is needed and the nature of the episodic event;

2. The estimated amount of hazardous waste to be managed from the event;

3. How the hazardous waste is to be managed;

4. The estimated length of time needed to complete management of the hazardous waste generated from the episodic event—not to exceed sixty (60) days; and

5. Information regarding the previous episodic event managed by the generator, including the nature of the event, whether it was a planned or unplanned event, and how the generator complied with the conditions.

(c) The petition must be made to the Department in writing.

(d) The generator must retain written approval in its records for three (3) years from the date the episodic event ended.

Author: Vernon H. Crockett; Sonja B. Favors; Brent A. Watson; Jonah L. Harris
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14.
History: April 6, 2018; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

334-14-3-.14 Preparedness, Prevention, Emergency Procedures for Large Quantity Generators

(1) Applicability. The regulations of this subpart apply to those areas of a large quantity generator where hazardous waste is generated or accumulated on site.

(2) Maintenance and operation of facility. A large quantity generator must maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste

constituents to air, soil, or surface water which could threaten human health or the environment.

(3) Required equipment. All areas deemed applicable by 335-14-3-.14(1) must be equipped with the items in 335-14-3-.14(3)(a) through (d) (unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below or the actual hazardous waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified below). A large quantity generator may determine the most appropriate locations within its facility to locate equipment necessary to prepare for and respond to emergencies:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local law enforcement agencies, fire departments, or state or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(4) Testing and maintenance of equipment. All communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(5) Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access (e.g., direct or unimpeded access) to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under 335-14-3-.14(3).

(b) In the event there is just one employee on the premises while the facility is operating, the employee must have immediate access (e.g., direct or unimpeded access) to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under 335-14-3-.14(3).

(6) Required aisle space. The large quantity generator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(7) Arrangements with local authorities.

(a) The large quantity generator must attempt to make arrangements with the local law enforcement agency, fire department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements.

1. A large quantity generator attempting to make arrangements with its local fire department must determine the potential need for the services of the local law enforcement agency, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals.

2. As part of this coordination, the large quantity generator shall attempt to make arrangements, as necessary, to familiarize the above organizations with the layout of the facility, the properties of the hazardous waste handled at the facility and associated hazards, places where personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

3. Where more than one law enforcement agency or fire department might respond to an emergency, the large quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or law enforcement agency, and arrangements with any others to provide support to the primary emergency authority.

(b) The large quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation must include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

(c) A facility possessing 24-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code within the facility's state or locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the operating record.

(8) Purpose and implementation of contingency plan.

(a) A large quantity generator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(9) Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with 335-14-3-.14(8) and (13) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the generator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, or some other emergency or contingency plan, it need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the standards of 335-14-3. The generator may develop one contingency plan that meets all regulatory standards. [**NOTE**: The Department recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan")].

(c) The plan must describe arrangements agreed to with the local law enforcement agency, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or, if applicable, the Local Emergency Planning Committee, pursuant to 335-14-3-.14(7).

(d) The plan must list names and emergency telephone numbers of all persons qualified to act as emergency coordinator (see 335-14-3-.14(12)), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. In situations where the generator facility has an emergency coordinator continuously on duty because it operates 24 hours per day, every day of the year, the plan may list the staffed position (e.g., operations manager, shift coordinator, shift operations supervisor) as well as an emergency telephone number that can be guaranteed to be answered at all times.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for generator personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(10) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be maintained at the large quantity generator, and:

(a) The large quantity generator must submit a copy of the contingency plan and all revisions to all local emergency responders (i.e., law enforcement agencies, fire departments, hospitals and State and local emergency response teams that may be

called upon to provide emergency services). This document may also be submitted to the Local Emergency Planning Committee, as appropriate.

(b) A large quantity generator must submit a quick reference guide of the contingency plan to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the following elements:

1. The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (e.g., toxic paint wastes, spent ignitable solvent, corrosive acid);

2. The estimated maximum amount of each hazardous waste that may be present at any one time;

3. The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;

4. A map of the facility showing where hazardous wastes are generated and accumulated, and routes for accessing these wastes;

5. A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;

6. The locations of water supply (e.g., fire hydrant and its flow rate);

7. The identification of on-site notification systems (e.g., a fire alarm that rings off site, smoke alarms); and

8. The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

(c) Generators must update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee.

(11) Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The generator facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

(12) Emergency coordinator. At all times, there must be at least one employee either on the generator's premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures and implementing the necessary emergency procedures outlined in 335-14-3-.14(13). Although responsibilities may vary depending on factors such as type and variety of hazardous waste(s) handled by the facility, as well as type and complexity of the facility, this emergency coordinator must be thoroughly familiar with all aspects of the generator's contingency plan, all operations and activities at the facility, the location and characteristics of hazardous waste handled, the location of all records within the facility, and the facility's layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(13) Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

1. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

2. Notify appropriate state or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of the facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, the emergency coordinator must report the findings as follows:

1. If the assessment indicates that evacuation of local areas may be advisable, the emergency coordinator must immediately notify appropriate local authorities. The emergency coordinator must be available to help appropriate officials decide whether local areas should be evacuated; and

2. The emergency coordinator must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of the generator;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the generator's facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released hazardous waste, and removing or isolating containers.

(f) If the generator stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the generator can demonstrate, in accordance with 335-14-2-.01(3)(c) and (d), that the recovered material is not a hazardous waste, then it is a newly generated hazardous waste that must be managed in accordance with all the applicable requirements and conditions for exemption in 335-14-3, -4, and -6.

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

1. No hazardous waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15

days after the incident, the generator must submit a written report on the incident to the Department. The report must include:

1. Name, address, and telephone number of the generator;

2. Date, time, and type of incident (e.g., fire, explosion);

3. Name and quantity of material(s) involved;

4. The extent of injuries, if any;

5. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

6. Estimated quantity and disposition of recovered material that resulted from the incident.

Author: Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14.
History: April 6, 2018.

335-14-3 Appendix I - Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and their Instructions). (REPEALED)

Authors: Stephen C. Maurer, William K. Mullins II; Michael B. Champion; Amy P. Zachry, Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-14, 22-30-15, 22-30-16, 22-30-17.
History: April 9, 1986. **Amended:** Effective: September 29, 1986; **Amended:** Effective: February 15, 1988; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 21, 1989; **Amended:** Effective: January 5, 1995; **Amended:** Effective: March 28, 1997; **Amended:** Effective: April 13, 2001; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: March 31, 2009; **Amended:** Effective: March 31, 2017; **Amended:** Effective: April 5, 2019.

335-14-3 Appendix II – [RESERVED]

335-14-3 Appendix III – [RESERVED]

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-4
STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

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335-14-4-.01 General.

(1) Scope.

(a) 335-14-4 establishes standards which apply to persons transporting hazardous waste within the State of Alabama if the transportation requires a manifest under Chapter 335-14-3 and except as provided otherwise in Code of Alabama 1975, § 22-30-21, as amended.

(b) 335-14-4 does not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste must also comply with Chapter 335-14-3, Standards Applicable to Generators of Hazardous Waste, if he:

1. Transports hazardous waste into the United States from abroad; or

2. Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

(d) A transporter of hazardous waste that is being imported from or exported to any other country for purposes of recovery or disposal is subject to 335-14-4-.01 and to all other relevant requirements of 335-14-3-.09, including, but not limited to, the requirements for movement documents in 335-14-3-.09(5).

(e) The regulations in 335-14-4-.01 do not apply to transportation during an explosives or munitions emergency response, conducted in accordance with 335-14-5-.01(1)(g)8.(i)(IV) or (iv) or 335-14-6-.01(1)(c)11.(i)(IV) or (iv), and 335-14-8-.01(1)(c)3.(i)(IV) or (iii).

(f) 335-14-7-.13(4) identifies how the requirements of 335-14-4-.01 apply to military munitions classified as solid waste under 335-14-7-.13(3).

(2) EPA identification number and Alabama Hazardous Waste Transport Permit.

(a) A transporter must not transport hazardous wastes without having received an EPA identification number from the Administrator or the authorized State in which the base of operations is located. If the transporter's base of operations is located within the State of Alabama, such application shall be submitted to the Department.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Administrator or the authorized State in which the base of operations is located using EPA Form 8700-12 or the authorized State's equivalent.

(c) A non-rail transporter must not transport hazardous wastes without having received an Alabama Hazardous Waste Transport Permit in compliance with rules 335-14-8-.09 through 335-14-8-.13.

(3) [Reserved].

(4) Annual Submission of ADEM Form 8700-12, Notification of Regulated Waste Activity and Certifications of Waste Management.

(a) A transporter whose base of operations is located within the State of Alabama must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current waste activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

(b) The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

Author: Stephen C. Maurer; Amy P. Zachry; Michael B. Champion; C. Edwin Johnston; Bradley N. Curvin; Heather M. Jones; James K. Burgess; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12, 22-30-15 and 22-30-21.
History: November 19, 1980.
Amended: April 9, 1986; February 15, 1988; August 24, 1989; January 1, 1993; March 28, 1997; March 27, 1998; April 13, 2001; March 15, 2002; March 31, 2005; March 31, 2009; March 31, 2011; April 3, 2012; April 6, 2018.

335-14-4-.02 Compliance with the Manifest System and Recordkeeping.

(1) The manifest system.

(a) Manifest requirement

1. A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest signed in accordance with the requirements of 335-14-3-.02(4) or 335-14-3-.02(5).

2. Exports. In the case of exports other than those subject to 335-14-3-.09, a transporter may not accept such waste from a primary exporter or other person if he knows the shipment does not conform to the EPA Acknowledgement of Consent; and unless, in addition to a manifest signed by the generator as provided in this section, the transporter shall also be provided with an EPA Acknowledgement of Consent which, except for shipments by rail, is attached to the manifest [or shipping paper for exports by water (bulk shipment)]. For exports of hazardous waste subject to 335-14-3-.09, a transporter may not accept hazardous waste without a movement document that includes all information required by 335-14-3-.09(4).

3. Compliance Date for Form Revisions. Compliance with the revisions to the Manifest form and procedures announced in the regulation published by EPA on March 4, 2005 were not required until September 4, 2006. The revised Manifest form and procedures had an effective date of September 5, 2006. The Manifest form and procedures revised as of July 1, 2004, were applicable until September 5, 2006.

4. Use of electronic manifest -- legal equivalence to paper forms for participating transporters. Electronic manifests that are obtained, completed, and transmitted in accordance with 335-14-3-.02(1)(a)3., and used in accordance with 335-14-4-.02(1)(a)4. in lieu of EPA Forms 8700-22 and 8700-22A, are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement to obtain, complete, sign, carry, provide, give, use, or retain a manifest.

(i) Any requirement to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtain a valid and enforceable electronic signature with the meaning of 40 C.F.R. § 262.25(a).

(ii) Any requirement to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person by submission to the electronic manifest system.

(iii) Any requirement for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment, except that to the extent that the transporter must carry a paper document to comply with 49 C.F.R. § 177.817, a hazardous waste transporter must carry one printed copy of the electronic manifest on the transport vehicle.

(iv) Any requirement for a transporter to keep or retain a copy of a manifest is satisfied by the retention of an electronic manifest in the transporter's account on the electronic manifest system, provided that such copies are readily available for viewing and production if requested by EPA or the Department.

(v) No transporter may be held liable for the inability to produce an electronic manifest for inspection under this section if that transporter can demonstrate that the inability to produce the electronic manifest is exclusively due to a technical difficulty with the electronic manifest system for which the transporter bears no responsibility.

5. A transporter may participate in the electronic manifest system either by accessing the electronic manifest system from the transporter's own electronic equipment, or by accessing the electronic manifest system from the equipment provided by a participating generator, by another transporter, or by a designated facility.

6. Special procedures when electronic manifest is not available. If after a manifest has been originated electronically and signed electronically by the initial transporter, and the electronic manifest system should become unavailable for any reason, then:

(i) The transporter in possession of the hazardous waste when the electronic manifest becomes unavailable shall reproduce sufficient copies of the printed manifest that is carried on the transport vehicle pursuant to 335-14-4-.02(1)(a)4.(iii), or obtain and complete another paper manifest for this purpose. The transporter shall reproduce sufficient copies to provide the transporter and all subsequent waste handlers with a copy for their files, plus two additional copies that will be delivered to the designated facility with the hazardous waste.

(ii) On each printed copy, the transporter shall include a notation in the Special Handling and Additional Description space (Item 14) that the paper manifest is a replacement manifest for a manifest originated in the electronic manifest system, shall include (if not preprinted on the replacement manifest) the manifest tracking number of the electronic manifest that is replaced by the paper manifest, and shall also include a brief explanation why the electronic manifest was not available for completing the tracking of the shipment electronically.

(iii) A transporter signing a replacement manifest to acknowledge receipt of the hazardous waste must ensure that each paper copy is individually signed and that a legible handwritten signature appears on each copy.

(iv) From the point at which the electronic manifest is no longer available for tracking the waste shipment, the paper replacement manifest copies shall be carried, signed, retained as records, and given to a subsequent transporter or to the designated facility, following the instructions, procedures, and requirements that apply to the use of all other paper manifests. 7. If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with 335-14-4-.02(1)(a)4.(iii). This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to indicate the receipt of the waste materials or to indicate discrepancies. After the owner/operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

7. Special procedures for electronic signature methods undergoing tests. If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with 335-14-4-.02(1)(a)(4)(iii). This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to indicate the receipt of the waste materials or to indicate discrepancies. After the owner/operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

8. [Reserved].

9. Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person (e.g., waste handler) named on the manifest. Transporters may participate electronically in the post-receipt data corrections process by following the process described in 335-14-5-.05(2)(l), which applies to corrections made to either paper or electronic manifest records.

(b) Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter must return a signed copy to the generator before leaving the generator's property.

(c) The transporter must ensure that the manifest accompanies the hazardous waste. In the case of exports occurring under the terms of a consent issued by EPA to the exporter on or after December 31, 2016, the transporter must ensure that a movement document that includes all information required by 335-14-3-.09(4) also accompanies the hazardous waste. In the case of imports occurring under the terms of a consent issued by EPA to the country of export or the importer on or after December 31, 2016, the transporter must ensure that a movement document that includes all information required by 335-14-3-.09(3) also accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility must:

1. Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

2. Retain one copy of the manifest in accordance with 335-14-4-.02(3); and

3. Give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of 335-14-4-.02(1)(c), (d), and (f) do not apply to water (bulk shipment) transporters if:

1. The hazardous waste is delivered by water (bulk shipment) to the designated facility; and

2. A shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, the state manifest document number, the generator certification and signatures) and, for exports or imports, a movement document that includes all the information required by 335-14-3-.09(4) or (5) accompanies the hazardous waste; and

3. The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

4. The person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

5. A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with 335-14-4-.02(3).

(f) For shipments involving rail transportation, the requirements of 335-14-4-.02(1)(c), (d), and (e) do not apply and the following requirements do apply:

1. When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:

(i) Sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) Return a signed copy of the manifest to the non-rail transporter;

(iii) Forward at least three copies of the manifest to:

(I) The next non-rail transporter, if any; or

(II) The designated facility, if the shipment is delivered to that facility by rail; or

(III) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with 335-14-4-.02(3).

2. Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, the state manifest document number, the state waste numbers, generator certification and signatures) and, for exports or imports, an a movement document that includes all information required by 335-14-3-.09(4) or (5) accompanies the hazardous waste at all times.

[**Note:** Intermediate rail transporters are not required to sign either the manifest, movement document or shipping paper.]

3. When delivering hazardous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with 335-14-4-.02(3).

4. When delivering hazardous waste to a non-rail transporter a rail transporter must:

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with 335-14-4-.02(3).

5. Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States must:

1. Sign and date the manifest in the International Shipments block to indicate the date that the shipment left the United States;

2. Retain one copy in accordance with 335-14-4-.02(3)(d);

3. Return a signed copy of the manifest to the generator; and

4. For paper manifests only:

(i) Send a copy of the manifest to the e-Manifest system in accordance with the allowable methods specified in 335-14-5-.05(2)(a)1.(v); and

(ii) For shipments initiated prior to the AES filing compliance date, when instructed by the exporter to do so, give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

(h) A transporter transporting hazardous waste from a small quantity generator need not comply with the requirements of 335-14-4-.02(1), or those of 335-14-4-.02(3), provided that:

1. The waste is being transported pursuant to a reclamation agreement as provided for in 335-14-3-.01(1)(e);

2. The transporter records, on a log or shipping paper, the following information for each shipment:

(i) The name, address, and U.S. EPA Identification Number of the generator of the waste;

(ii) The quantity of waste accepted;

(iii) All DOT-required shipping information;

(iv) The date the waste is accepted; and

3. The transporter carries this record when transporting waste to the reclamation facility; and

4. The transporter retains these records for a period of at least three years after termination or expiration of the agreement.

(2) Compliance with the manifest.

(a) Except as provided in 335-14-4-.02(2)(b), the transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

1. The designated facility listed on the manifest; or

2. The alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

3. The next designated transporter; or

4. The place outside the United States designated by the generator.

(b) If the hazardous waste cannot be delivered in accordance with 335-14-4-.02(2)(a).

1. Emergency condition. If the hazardous waste cannot be delivered in accordance with 335-14-4-.02(2)(a) because of an emergency condition other than rejection of the waste by the designated facility, then the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

2. Transporters without agency authority. Transporters without agency authority. If the hazardous waste is not delivered to the next designated transporter in accordance with 335-14-4-.02(2)(a)3., and the current transporter is without contractual authorization from the generator to act as the generator’s agent with respect to transporter additions or substitutions, then the current transporter must contact the generator for further instructions prior to making any revisions to the transporter designations on the manifest. The current transporter may thereafter make such revisions if:

(i) The hazardous waste is not delivered in accordance with 335-14-4-.02(2)(a)3. because of an emergency condition; or

(ii) The current transporter proposes to change the transporter(s) designated on the manifest by the generator, or to add a new

transporter during transportation, to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety; and

(iii) The generator authorizes the revision.

3. Transporters with agency authority. If the hazardous waste is not delivered to the next designated transporter in accordance with 335-14-4-.02(2)(a)3., and the current transporter has authorization from the generator to act as the generator's agent, then the current transporter may change the transporter(s) designated on the manifest, or add a new transporter, during transportation without the generator's prior, explicit approval, provided that:

(i) The current transporter is authorized by a contractual provision that provides explicit agency authority for the transporter to make such transporter changes on behalf of the generator;

(ii) The transporter enters in Item 14 of each manifest for which such a change is made, the following statement of its agency authority: "Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf;" and

(iii) The change in designated transporters is necessary to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety.

4. Generator liability. The grant by a generator of authority to a transporter to act as the agent of the generator with respect to changes to transporter designations under 335-14-4-.02(2)(a)3. does not affect the generator's liability or responsibility for complying with any applicable requirement under this chapter, or grant any additional authority to the transporter to act on behalf of the generator.

(c) If hazardous waste is rejected by the designated facility while the transporter is on the facility's premises, then the transporter must obtain the following:

1. For a partial load rejection or for regulated quantities of container residues, a copy of the original manifest that includes the facility's date and signature, and the Manifest Tracking Number of the new manifest that will accompany the shipment, and a description of the partial rejection or container residue in the discrepancy block of the original manifest. The transporter must retain a copy of this manifest in accordance with 335-14-4-.02(3), and give the remaining copies of the original manifest to the rejecting designated facility. If the transporter is forwarding the rejected part of the shipment or a regulated container residue to an alternate facility or returning it to the generator, the transporter must obtain a new manifest to accompany the shipment, and the new manifest must include all of the information required in 335-14-5-.05(3)(e)1. through 6. or 335-14-5-.05(3)(f)1. through 6. or 335-14-6-.05(3)(e)1. through 6. or 335-14-6-.05(3)(f)1. through 6.

2. For a full load rejection that will be taken back by the transporter, a copy of the original manifest that includes the rejecting facility's signature and date attesting to the rejection, the description of the rejection in the discrepancy block of the manifest, and the name, address, phone number, and Identification Number for the alternate facility or generator to whom the shipment must be delivered. The transporter must retain a copy of the manifest in accordance with 335-14-4-.02(3), and give a copy of the manifest containing this information to the rejecting designated facility. If the original manifest is not used, then the transporter must obtain a new manifest for the shipment and comply with 335-14-5-.05(3)(e)1. through 6. or 335-14-6-.05(3)(e)1. through 6.

(3) Recordkeeping.

(a) A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in 335-14-4-.02(1)(e)2. for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

1. The initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in 335-14-4-.02(1)(f)2. for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

2. The final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

[**Note:** Intermediate rail transporters are not required to keep records pursuant to 335-14-4.]

(d) A transporter who transports hazardous waste out of the United States must keep a copy of the manifest indicating that the hazardous waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in 335-14-4-.02(3) are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Department.

(4) Required Records.

(a) A transporter of hazardous waste must maintain a copy of the current hazardous waste transporter permit with each vehicle actively transporting hazardous wastes.

(b) A transporter of hazardous waste must maintain a copy of the contingency plan required by rule 335-14-8-.09(4)(g) with each vehicle actively transporting hazardous wastes. This plan should be designed in accordance with the applicable United States Department of Transportation regulations under 49 CFR parts 172.602, 172.604, and 172.606.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Jonah Harris; Linda J. Knickerbocker; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-15, 22-30-17, 22-30-18 and 22-30-21.
History: November 19, 1980. **Amended:** Effective: September 29, 1986; **Amended:** Effective: February 15, 1988; **Amended:** Effective: August 24, 1989; **Amended:** Effective: January 5, 1995; **Amended:** Effective: March 28, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: April 3, 2007; **Amended:** Effective: March 31, 2011; **Amended:** Effective: March 31, 2017; **Amended:** Effective: April 6, 2018; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-4-.03 Hazardous Waste Discharges.

(1) Immediate action.

(a) In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(b) If a discharge of hazardous waste occurs during transportation and the Department or its designee acting within the scope of its official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, the Department or its designee may authorize the removal of the waste by transporters who do not have EPA identification numbers or Alabama Hazardous Waste Transportation Permits and without the preparation of manifests.

(c) An air, rail, highway or water transporter who has discharged hazardous waste must:

1. Give notice, if required by 49 CFR § 171.15, to the Alabama Emergency Management Agency (800-843-0699, 24 hours a day) and to the National Response Center (800-424-8802 or 202-426-2675); and

2. Report in writing as required by 49 CFR § 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590. A copy of such report shall be provided to the Land Division, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463, not later than 14 days after any such discharge.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR § 153.203 for oil and hazardous substances and shall give notice to the Alabama Emergency Management Agency (800-843-0699, 24 hours a day) and the National Response Center (800-424-8802 or 202-426-2675, 24 hours a day).

(2) Discharge clean up.

A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by the Department or its designee so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

Author: Stephen C. Maurer; James T. Shipman; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, § 22-30-11.
History: November 19, 1980.
Amended: April 9, 1986; August 24, 1989; January 5, 1995; January 12, 1996; April 13, 2001; April 4, 2006; March 31, 2009; March 26, 2013, March 31, 2017.

335-14-4-.04 Financial Requirements.

(1) Any person proposing to transport hazardous waste shall submit, with their application for an Alabama Hazardous Waste Transport Permit, one of the following:

(a) A surety bond in which the applicant is the principal obligor and the Department is the obligee;

1. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury or be a corporate surety licensed to do business in the State of Alabama; and

2. The wording of the surety bond must be identical to the following:

SURETY BOND

Date bond executed:	
Effective date:	
Principal:	[legal name, business address and EPA identification number of applicant]
Type of organization:	[insert "individual", "joint venture", "partnership" or "corporation"]
State of incorporation:	
Surety(ies):	[name(s) and business address(es)]
Total penal sum of bond:	$
Surety's bond number:	

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Alabama Department of Environmental Management (hereinafter, "the Department"), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Alabama Hazardous Wastes Management and Minimization Act of 1978, as amended (AHWMMA), to have a permit in order to transport hazardous waste, and

Whereas said Principal is required by Code of Alabama 1975, § 22-30-12(c)(4) to provide financial assurance for compliance with the AHWMMA, the regulations promulgated thereunder, the permit issued to the Principal and any orders issued to the Principal by the Department, and for damages to human health and the environment, including the costs of cleanups caused by spills.

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully comply with the AHWMMA, the regulations promulgated thereunder, the permit issued to the Principal, any order(s) issued to the Principal

by the Department, and correct any damages to human health or the environment, including the cleanup of spills as approved by the Department for the term of the permit issued to the Principal and the Surety(ies) gives notice of intent not to renew this Performance Bond not less than 90 days prior to the expiration of the permit issued to the Principal,

Or, if the Principal shall provide alternate financial assurance as specified in rule 335-14-4-.04(1)(b) or (c) of the Alabama Department of Environmental Management Administrative Code and obtain the Department's written approval of such assurance within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies) then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Department that the Principal has been found in violation of the AHWMMA, the regulations promulgated thereunder, the permit issued to the Principal or any order(s) issued to the Principal for activities regulated pursuant to the AHWMMA, the Surety(ies) shall correct the violation, including the cost of any remedial action, and pay any penalties assessed by the Department against the Principal or shall within 15 days after notification by the Department, pay to the Department the amount designated as the total penal sum of the bond or such amount as remains if previous violations have been assessed against this bond.

The Surety(ies) hereby waive(s) notification of amendments to permits, applicable laws and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in rule 335-14-4-.04(1)(a) of the Alabama Department of Environmental Management Administrative Code as such rule was constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)] _____

_____

[Name(s)] _____

_____

[Title(s)] _____

_____

[Corporate seal]

CORPORATE SURETY(IES)

[Name and address] _____

_____

_____

_____

State of incorporation: _____

Liability limit: $ _____

[Signature(s)] _____

_____

[Name(s) and title(s)] _____

_____

[Corporate seal]

[For every co-surety provide the above required information, signature(s) and corporate seal.]

Bond premium: $ _____

3. The amount of the surety bond for environmental restoration shall be established as follows:

(i) Transporters proposing to transport liquid or flammable solid hazardous wastes shall be required to provide a surety bond in an amount

equal to $50,000 per vehicle transporting such wastes to a maximum of $1,000,000 or proof of net worth as provided in 335-14-4-.04(1)(b);

(ii) Transporters proposing to transport nonflammable solid hazardous wastes shall be required to provide a surety bond in an amount equal to $25,000 per vehicle transporting such wastes to a maximum of $1,000,000 or proof of net worth as provided in 335-14-4-.04(1)(b); and

(iii) If the assurance surety bond is drawn upon, the Department may require additional assurance from the permittee and if the permittee fails to provide the assurance as required, the Department may terminate the permit as set out in 335-14-8-.11(2).

(b) Evidence satisfactory to the Department that the person proposing to transport hazardous waste has a net worth equal to ten times the value of the proposed surety bond. Such evidence shall be submitted in the form of a letter from the chief financial officer of the applicant and shall be in a form identical to the following:

DEMONSTRATION OF NET WORTH

Letter from the Chief Financial Officer

(To demonstrate net worth as required by Code of Alabama 1975, § 22-30-12(c)(4) in order to demonstrate financial responsibility for noncompliance with the Alabama Hazardous Wastes Management and Minimization Act of 1978, the regulations promulgated thereunder and any permits or orders issued to the applicant and to demonstrate financial responsibility for damages to human health and the environment, including the costs of cleanups, caused by spills. This demonstration may be used in conjunction with other allowable mechanisms in order to provide the required coverage.)

[Address to the Director, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463]

I am the chief financial officer of [applicant's name, address and EPA transporter identification number]. This letter is in support of the use of the demonstration of net worth to demonstrate financial responsibility as required by Code of Alabama 1975, § 22-30-12(c)(4) and rule 335-14-4-.04 of the Alabama Department of Environmental Management Administrative Code.

This applicant [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this applicant ends on [month, day]. The figures for the following items marked with an asterisk are derived from a year-end financial statement(s) for the latest completed fiscal year, ended [date], prepared for the applicant by an independent auditor.

Net Worth

1.	Amount of annual aggregate financial responsibility to be demonstrated	$ _____
*2.	Total assets	$ _____
*3.	Total liabilities	$ _____
*4.	Net worth (line 2. minus line 3.)	$ _____
*5.	If less than 90% of assets are located in the U.S. give total U.S. assets	$ _____
6.	Is line 4 at least 10 times line 1.?.....	_____ Yes _____ No

I hereby certify that the wording of this letter is identical to that in rule 335-14-4-.04(1)(b) of the Alabama Department of Environmental Management Administrative Code.

[Signature] _____

[Name] _____

[Title] _____

[Date] _____

(c) Proof of insurance in a minimum amount of $1,000,000 to cover damages to human health or the environment, exclusive of legal defense costs as defined in 335-14-1-.02. Such insurance may not include a pollution exclusion clause. Proof of insurance must be provided on a Certificate of Insurance form naming the Alabama Department of Environmental Management as the certificate holder and giving at least 30 days written Notice of Cancellation to the certificate holder. Nothing in 335-14-4-.04(1)(c) shall be construed to allow a transporter to operate in violation of the United States Department of Transportation rules and regulations governing financial assurance.

(2) A transporter must demonstrate to the satisfaction of the Department that the financial document submitted with their application as required in 335-14-4-.04 is in force for the entire duration of the permit. The Department may request a permitted transporter at any time to demonstrate that financial assurance is in force for the duration of the hazardous waste transporter permit.

Author: Stephen C. Maurer; James T. Shipman; Lawrence A. Norris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12(f).
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; February 15, 1988; August 24, 1989; January 5, 1995; April 13, 2001; March 15, 2002; March 31, 2009; March 26, 2013.

335-14-4-.05 Transfer Facility Requirements.

(1) Applicability. The requirements of rule 335-14-4-.05 apply to all persons transporting hazardous waste within Alabama, storing waste at a transfer facility located in Alabama, as defined in rule 335-14-1-.02, or transferring a hazardous waste from one container to another at a transfer facility located in Alabama. For the purposes of 335-14-4, such persons are referred to as "transporters."

(2) Storage units. Owners or operators of transfer facilities may not store hazardous waste in units other than containers subject to regulation under Chapters 335-14-5 or 335-14-6.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove hazardous waste.

(b) Special requirements for the management of ignitable or reactive hazardous waste.

1. The owner or operator of a transfer facility must comply with 335-14-5-.02(8)(a);

2. Containers holding ignitable or reactive hazardous waste must be located at least 15 meters (50 feet) from the facility's property line.

[**Note:** Hazardous waste transfer facilities that were in operation prior to March 31, 2005 are exempt from the 15 meter (50 foot) requirement, provided that the facility demonstrates compliance with applicable portions of the National Fire Protection Association's (NFPA) Code(s) 30 and 400. Failure to demonstrate compliance with the applicable NFPA code(s) will be viewed as a violation of 335-14-4-.05(2)(b)2.]

(3) Storage time. A transfer facility may hold waste for no longer than 10 days during the normal course of transportation.

(a) A transfer facility must be able to demonstrate the length of time that the hazardous waste has been stored on-site.

(b) A transfer facility that stores hazardous waste for more than 10 days is subject to regulation as a storage facility under Chapters 335-14-5, 335-14-6, 335-14-8, and 335-14-9.

(c) The owner or operator may make this demonstration by:

1. Labeling each hazardous waste container with the date that the hazardous waste container was received;

2. Maintaining an inventory system on-site that identifies the date the hazardous waste containers being stored were received;

3. Maintaining an inventory system on-site that identifies the earliest date that any hazardous waste container in a group of hazardous waste containers was received;

4. Placing the hazardous waste container in a specific storage area and identifying the earliest date that any hazardous waste container in the area was received; or

5. Any other method which clearly demonstrates the length of time that the hazardous waste containers have been stored on-site.

(4) Condition of units. Containers used to store hazardous waste at transfer facilities must be:

(a) In good condition (no severe rusting, apparent structural defects or deterioration); and

(b) Not leaking (no visible leaks).

(5) Containment. Container storage areas at transfer facilities must be equipped with a containment system that is designed and operated in accordance with rule 335-14-4-.05(5)(a), except as otherwise provided by rule 335-14-4-.05(5)(b).

(a) The containment system must be designed and operated as follows:

1. The system must consist of, at a minimum, dikes, berms or retaining walls and a floor that covers the entire area within the dikes, berms, or retaining walls.

2. The entire containment system, including walls and floors, must be sufficiently impervious to hazardous waste to prevent any hazardous waste released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The floor must be sloped or the containment system must be otherwise designed, constructed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or otherwise protected from contact with accumulated liquids;

4. The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater;

5. Run-on, and the entrance of precipitation, into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-4-.05(5)(a)4. to contain any run-on or precipitation which might enter the system; and

6. Spilled or leaked hazardous waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

(b) Container storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by rule 335-14-4-.05(5)(a), except as provided by rule 335-14-4-.05(5)(c), provided that:

1. The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2. The containers are elevated or are otherwise protected from contact with accumulated liquid.

(c) Container storage areas that store containers holding wastes identified as F020, F021, F023, and F027 must have a containment system defined by 335-14-4-.05(5)(a), regardless of whether or not they contain free liquids.

(6) Labels. Containers used to store hazardous waste at transfer facilities must be labeled or marked clearly with the words "Hazardous Waste" and the appropriate EPA hazardous waste number(s). The label(s) must be visible for inspection.

(7) Response to releases. Upon detection of a release of hazardous waste to the environment that is not subject to the corrective action requirements of Division 335-6, Volume 2 of the ADEM Administrative Code, the owner/operator of a transfer facility must perform the following cleanup steps:

(a) Stop the release;

(b) Contain the released hazardous waste;

(c) Clean up and manage properly the released hazardous waste and other materials in accordance with all applicable requirements of Division 335-13 and 335-14 of the ADEM Administrative Code; and

(d) If necessary, repair or replace any leaking hazardous waste storage containers prior to returning them to service.

(8) Closure.

(a) At closure, containers holding hazardous waste or residues of hazardous waste must be removed from the site;

(b) The owner or operator must remove or decontaminate hazardous waste residues, contaminated containment systems components, contaminated soils, and structures and equipment contaminated with hazardous waste, managing them as hazardous waste, unless the materials are not to be a hazardous waste under 335-14-2.

Author: Bradley N. Curvin; Theresa A. Maines, Heather M. Jones; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975 § 22-30-14, 22-30-15, 22-30-16.
History: March 31, 2005.
Amended: April 3, 2007; May 27, 2008; March 31, 2009; March 30, 2010; March 31, 2017; April 6, 2018.

335-14-4-.06 **Special Conditions.** The Department may establish conditions and restrictions upon the transportation of a particular shipment of hazardous waste as the Department deems necessary to protect human health or the environment.

Author: Stephen C. Maurer; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, § 22-30-11.
History: November 19, 1980.
Amended: August 24, 1989; March 31, 2005.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM
ADMINISTRATIVE CODE

CHAPTER 335-14-5
STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

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335-14-5-.01 General.

(1) Purpose, scope and applicability.

(a) The purpose of 335-14-5 is to establish minimum standards which define the acceptable management of hazardous waste.

(b) The standards in 335-14-5 apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste, except as specifically provided otherwise in 335-14-5 or 335-14-2.

(c) **[Reserved].**

(d) **[Reserved].**

(e) **[Reserved].**

(f) **[Reserved].**

(g) The requirements of 335-14-5 do not apply to:

1. The owner or operator of a facility permitted by the Department to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under 335-14-5 or 335-14-3-.01(4);

2. The owner or operator of a facility managing recyclable materials described in 335-14-2-.01(6)(a)2., 3. and 4. (except to the extent that requirements of 335-14-5 are referred to in 335-14-17 or 335-14-7-.03, 335-14-7-.06, 335-14-7-.07 or 335-14-7-.08);

3. A generator accumulating waste on-site in compliance with 335-14-3-.01, except as otherwise provided in 335-14-3;

4. A farmer disposing of waste pesticides from his own use in compliance with 335-14-3-.07(1);

5. The owner or operator of a totally enclosed treatment facility, as defined in 335-14-1-.02;

6. The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in 335-14-1-.02, provided that if the owner or operator is treating hazardous ignitable (D001) wastes [other than the D001 High TOC Subcategory defined in 335-14-9-.04(1), Table "Treatment Standards for Hazardous

Wastes"], or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in 335-14-5-.02(8)(b).

7. **[Reserved].**

8.(i) Except as provided in 335-14-5-.01(1)(g)8.(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:

(I) A discharge of a hazardous waste;

(II) An imminent and substantial threat of a discharge of hazardous waste;

(III) A discharge of a material which, when discharged, becomes a hazardous waste;

(IV) An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 335-14-1-.02.

(ii) An owner or operator of a facility otherwise regulated by Division 335-14 must comply with all applicable requirements of 335-14-5-.03 and 335-14-5-.04;

(iii) Any person who is covered by 335-14-5-.01(1)(g)8.(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of 335-14-5 and 335-14-8;

(iv) In the case of an explosives or munitions emergency response, if a Federal, State of Alabama, Tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA Identification numbers or Alabama Hazardous Waste Transport Permits and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

9. **[Reserved].**

10. The addition of sorbent material to waste in a container or the addition of waste to sorbent material in a container, provided that these activities occur at the time waste is first placed in the container, and 335-14-5-.02(8)(b) and 335-14-5-.09(2) and (3) are complied with.

11. A generator treating hazardous wastes, generated on-site, by evaporation in tanks or containers, provided such treatment complies with 335-14-8-.01(1)(c)2.(viii).

12. Universal waste handlers and universal waste transporters [as defined in 335-14-1-.02] handling the wastes listed below. These handlers are subject to regulation under 335-14-11, when handling the below listed universal wastes:

(i) Batteries as described in 335-14-11-.01(2);

(ii) Pesticides as described in 335-14-11-.01(3);

(iii) Mercury-containing equipment as described in 335-14-11-.01(4);

(iv) Lamps as described in 335-14-11-.01(5); and

(v) Aerosol cans as described in 335-14-11-.01(6).

13. Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in 335-14-1-.02. Reverse distributors are subject to regulation under 335-14-7-.16 in lieu of 335-14-5 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(h) The requirements of 335-14-5 apply to owners or operators of all facilities which treat, store, or dispose of hazardous waste referred to in 335-14-9.

(i) 335-14-7-.13(6) identifies when the requirements of 335-14-5-.01 apply to the storage of military munitions classified as solid waste under 335-14-7-.13(3). The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 335-14-1 through 335-14-9.

(j) The requirements of 335-14-5-.02, 335-14-5-.03, 335-14-5-.04 and 335-14-5-.06(12) do not apply to remediation waste management sites. (However, some remediation waste management sites may be a part of a facility that is subject to a traditional RCRA permit because the facility is also treating, storing or disposing of hazardous wastes that are not remediation wastes. In these cases, 335-14-5-.02, 335-14-5-.03, 335-14-5-.04 and 335-14-5-.06(12) do apply to the facility subject to the traditional RCRA permit.) Instead of the requirements of 335-14-5-.02, 335-14-5-.03, and 335-14-5-.04 owners or operators of remediation waste management sites must:

1. Obtain an EPA identification number by applying to ADEM using ADEM Form 8700-12;

2. Obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis must contain all of the information which must be known

to treat, store or dispose of the waste according to 335-14-5 and 335-14-9, and must be kept accurate and up to date;

3. Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the Department that:

(i) Physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site will not injure people or livestock who may enter the active portion of the remediation waste management site; and

(ii) Disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, will not cause a violation of 335-14-5;

4. Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and must remedy the problem before it leads to a human health or environmental hazard. Where a hazard is imminent or has already occurred, the owner/operator must take remedial action immediately;

5. Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of 335-14-5, and on how to respond effectively to emergencies;

6. Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and prevent threats to human health and the environment from ignitable, reactive and incompatible waste;

7. For remediation waste management sites subject to regulation under 335-14-5-.09 through 335-14-5-.15 and 335-1-5-.24, the owner/operator must design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner/operator can meet the demonstration of 335-14-5-.02(9)(b);

8. Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave;

9. Develop and maintain a construction quality assurance program for all surface impoundments, waste piles and landfill units that are required to comply with 335-14-5-.11(2)(c) and (d), 335-14-5-.12(2)(c) and (d), and 335-14-5-.14(2)(c)and (d) at the remediation waste management site, according to the requirements of 335-14-5-.02(10);

10. Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures must address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan must be to minimize the possibility of, and the hazards from, a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan must explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and must be implemented immediately in the event of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment;

11. Designate at least one employee, either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility quickly), to coordinate all emergency response measures. The emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan;

12. Develop, maintain and implement a plan to meet the requirements in 335-14-5-.01(1)(j)2. through (j)6. and (j)9. through (j)10.; and

13. Maintain records documenting compliance with 335-14-5-.01(1)(j)1. Through (j)12.

(2) **[Reserved].**

(3) Relationship to interim status standards. A facility owner or operator who has fully complied with the requirements for interim status must comply with the Rules specified in 335-14-6 in lieu of 335-14-5, until final administrative disposition of his Hazardous Waste Facility Permit is made; except as provided under 335-14-5-.19.

(4) Imminent hazard action. Notwithstanding any other provisions of these Rules, enforcement actions may be brought pursuant to Section 7003 of RCRA and the AHWMMA.

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335-14-5-.02 General Facility Standards.

(1) Applicability.

(a) The requirements of 335-14-5-.02 apply to owners and operators of all hazardous waste facilities, except as provided in 335-14-5-.01(1).

(b) **[Reserved].**

(2) Identification number. Every facility owner or operator must obtain an EPA identification number by submitting a correct and complete ADEM Form 8700-12 to the Department, along with the appropriate fees specified in ADEM Admin. Code Rule 335-1-6.

(3) Required notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste subject to 335-14-3-.09 from a foreign source must submit the following required notices:

1. For imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and obtain consent from EPA and the competent authorities for the countries of transit, such owner or operator of the facility, if acting as the importer, must provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in 335-14-3-.09(5) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

2. A copy of the movement document bearing all required signatures within three (3) working days of receipt of the shipment to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original of the signed movement document must be maintained at the facility for at least three (3) years. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, provided that copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System

(WIETS), or its successor system for which the owner or operator of a facility bears no responsibility.

3. If the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, such owner or operator of the facility must inform EPA, using the allowable methods listed in 335-14-.09(5) of the need to return or arrange alternate management of the shipment.

4. Such owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than thirty days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(ii) If the facility performed any of recovery operations R12, R13, or RC16, or disposal operations D13 through D15, or DC17, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC16, or one of disposal operations D1 through D12, or DC15 to DC16, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in this paragraph are defined in 335-14-.09(2).

(b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of 335-14-5 and 335-14-8. (An owner's or operator's failure to notify the new owner or operator of the requirements of 335-14-5 in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.)

(d)1. A facility owner or operator must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current waste activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at 335-14-1-.02(1)(a).

2. In order to eliminate the need for multiple notifications during the reporting year, facilities which anticipate periodically switching between generator classifications should notify for the higher classification (i.e., if a facility typically operates as a small quantity generator, but anticipates being a large quantity generator for any period during the year, they should notify as a large quantity generator); and

3. The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in ADEM Admin. Code Rule 335-1-6.

(4) General waste analysis.

(a)1. Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of 335-14-5, 335-14-7, and 335-14-9 and with the conditions of a permit issued under 335-14-8.

2. The analysis may include data developed under 335-14-2 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

3. The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), has changed; and

(ii) For off-site facilities, when the results of the inspection or analysis required in 335-14-5-.02(4)(a)4. indicate that the hazardous waste received at the facility does not match the waste described on the accompanying manifest or shipping paper.

4. The owner or operator of an off-site facility must inspect and analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with 335-14-5-.02(4)(a). He must keep this plan at the facility. At a minimum, the plan must specify:

1. The parameters for which each hazardous waste, or non-hazardous waste if applicable under 335-14-5-.07(4)(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters

will provide sufficient information on the waste's properties to comply with 335-14-5-.02(4)(a));

2. The test methods which will be used to test for these parameters;

3. The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in 335-14-2 - Appendix I; or

(ii) An equivalent sampling method approved by the Department;

4. The frequency, approved by the Department, with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

5. For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

6. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in 335-14-5-.02(8), 335-14-5-.14(15), 335-14-5-.15(2), 335-14-5-.27, 335-14-5-.28, 335-14-5-.29, 335-14-7-.08(3), and 335-14-9-.01(7).

7. For surface impoundments exempted from land disposal restrictions under 335-14-9-.01(4), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and

(iii) The annual removal of residues which are not delisted under 335-14-1-.03(2) or which exhibit a characteristic of hazardous waste and either:

(I) Do not meet applicable treatment standards 335-14-9-.04; or

(II) Where no treatment standards have been established;

I. Such residues are prohibited from land disposal under 335-14-9-.03(13) or RCRA Section 3004(d); or

II. Such residues are prohibited from land disposal under 335-14-9-.03(14).

8. For owners and operators seeking an exemption to the air emission standards of 335-14-5-.29:

(i) The procedures and schedules for waste sampling and analysis, and the analysis of test data to verify the exemption.

(ii) Each generator's notice and certification of the volatile organic concentration in the waste if the waste is received from off site.

(c) For off-site facilities, the waste analysis plan required in 335-14-5-.02(4)(b) must also specify the procedures which will be used to inspect and analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe and justify:

1. The procedures which will be used to determine the identity of each movement of waste managed at the facility and shall include collection of representative samples which will be obtained from each waste stream from each shipment of waste received from each generator and analyzed in accordance with the requirements of 335-14-5-.02(4) to accurately identify each movement of hazardous waste received at the facility;

2. The sampling method and number of samples which will be used to obtain a representative sample of the waste stream to be identified;

3. The method(s) which will be used to analyze the sample(s); and

4. The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

(d) For off-site facilities, samples of waste(s) from each generator collected in accordance with the requirements of 335-14-5-.02(4)(c) may be composited prior to analysis provided that:

1. No more than ten individual samples are composited into any one sample for analysis;

2. Only compatible wastes from the same generator and waste stream are composited into any one sample which is to be analyzed; and

3. In the event that the analytical results of sample(s) obtained in compliance with the requirements 335-14-5-.02(4) indicate that the hazardous waste received at the facility does not match the waste described on the accompanying manifest or shipping paper, the facility owner or operator shall:

(i) Collect and analyze a representative sample from each container;

(ii) Identify the container(s) holding the waste(s) which cause the discrepancy to occur; and

(iii) Comply with the requirements of 335-14-5-.05(3)(c).

(e) Upon receipt of a satisfactory demonstration based on the types of waste received and treated, stored or disposed of at the facility, processes utilized to manage the waste, and any other reasonable factors, the Department may grant a partial or full exemption from the requirements for the sampling and analysis of each shipment of waste as required by 335-14-5-.02(4)(c).

[**Note**: The term "movement" as used in 335-14-5-.02(4) refers to individual truckloads, batches, shipments, etc., of wastes received at the facility. It is not intended to impose requirements for additional waste analyses for internal movements of wastes within the facility unless otherwise required by Division 335-14.]

(5) Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Department that:

1. Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of the facility; and

2. Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of the facility, will not cause a violation of 335-14-5.

(b) Unless the owner or operator has made a successful demonstration under 335-14-5-.02(5)(a)1. and (a)2., a facility must have:

1. A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

2.(i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(c) Unless the owner or operator has made a successful demonstration under 335-14-5-.02(5)(a)1. and (a)2., a sign with the legend "Danger-Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of the facility, and at other locations, in sufficient numbers to be seen from any approach to the active portion. The legend must be written in English and in any other language predominant in the workplace and the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger-Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

(6) General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to, the release of hazardous waste constituents to the environment or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)1. The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or health hazards.

2. He must keep the schedule at the facility.

3. The schedule must identify the types of problems which are to be looked for during the inspection.

4. The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in 335-14-5-.09(5), 335-14-5-.10(4), 335-14-5-.10(6), 335-14-5-.11(7), 335-14-5-.12(5), 335-14-5-.13(9), 335-14-5-.14(4), 335-14-5-.15(8), 335-14-5-.24(3), 335-14-5-.27, 335-14-5-.28, 335-14-5-.28, 335-14-5-.28, and 335-14-5-.29) where applicable.

[Comment: 335-14-8 requires the inspection schedule to be submitted with Part B of the permit application. ADEM will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the Department may modify or amend the schedule as may be necessary.]

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(7) Personnel training.

(a) Facility personnel whose duties have a direct effect on hazardous waste management and/or hazardous waste accumulation, whether by direct contact with the hazardous waste or through hazardous waste management activities, must receive training.

1. Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 335-14-5. The owner or operator must ensure that this program includes all the elements described in the document required under 335-14-5-.02(7)(d)3.

2. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

3. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to groundwater contamination incidents; and

(vi) Shutdown of operations.

4. For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to 335-14-5-.02(7), provided that the overall facility training meets all the requirements of 335-14-5-.02(7).

(b) Facility personnel must successfully complete the program required in 335-14-5-.02(7)(a) within six months after the effective date of these rules or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these rules must not work in unsupervised positions until they have completed the training requirements of 335-14-5-.02(7)(a).

(c) Facility personnel must take part in an annual review of the initial training required in 335-14-5-.02(7)(a).

(d) The owner or operator must maintain the following documents and records at the facility:

1. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

2. A written job description for each position listed under 335-14-5-.02(7)(d)1. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under 335-14-5-.02(7)(d)1.; and

4. Records that document that the training or job experience required under 335-14-5-.02(7)(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(8) General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting, and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. “No Smoking” signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other paragraphs of 335-14-5, the owner or operator of a facility that treats, stores, or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:

1. Generate extreme heat or pressure, fire or explosions, or violent reactions;

2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4. Damage the structural integrity of the device or facility;

5. Through other like means threaten human health or the environment.

(c) When required to comply with 335-14-5-.02(8)(a) or (b), the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in 335-14-5-.02(4)), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(9) Location standards.

(a) **[Reserved].**

(b)1. Floodplains. A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Department's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

(ii) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(I) The volume and physical and chemical characteristics of the waste in the facility;

(II) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(III) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(IV) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

2. As used in 335-14-5-.02(9)(b)1.:

(i) “100-year floodplain” means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(ii) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) "100-year flood" means a flood that has a one percent chance of being equaled or exceeded in any given year.

(c) Salt dome formations, salt bed formations, underground mines, and caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

(10) Construction quality assurance program.

(a) CQA program.

1. A construction quality assurance (CQA) program is required for all surface impoundment, waste pile and landfill units that are required to comply with 335-14-5-.11(2)(c) and (d), 335-14-5-.12(2)(c) and (d), and 335-14-5-.14(2)(b). The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

2. The CQA program must address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes (flexible membrane liners);

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. The owner or operator of units subject to the CQA program under 335-14-5-.02(10)(a) of must develop and implement a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include:

1. Identification of applicable units and a description of how they will be constructed.

2. Identification of key personnel in the development and implementation of the CQA plan and CQA officer qualifications.

3. A description of inspection and sampling activities for all unit components identified in 335-14-5-.02(10)(a)2., including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under 335-14-5-.05(4).

(c) Contents of program.

1. The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in 335-14-5-.02(10)(a)2.;

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications; and

(iii) Conformity of all materials used with design and other material specifications under 335-14-5-.11(2), 335-14-5-.12(2), and 335-14-5-.14(2).

2. The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1.(i)(II), 335-14-5-.12(2)(c)1.(i)(II), and 335-14-5-.14(2)(b)1.(i)(II) in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The Department may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1.(i)(II), 335-14-5-.12(2)(c)1.(i)(II), and 335-14-5-.14(2)(b)1.(i)(II) in the field.

(d) Certification. Waste shall not be received in a unit subject to 335-14-5-.02(10) until the owner or operator has submitted to the Department by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of 335-14-5-.11(2)(c) or (d), 335-14-5-.12(2)(c) or (d), or 335-14-5-.14(2)(b); and the procedure in 335-14-8-.03(1)(l)2.(ii) has been completed. Documentation supporting the CQA officer's certification must be furnished to the Department upon request.

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335-14-5-.03 Preparedness and Prevention.

(1) Applicability. The requirements of 335-14-5-.03 apply to owners and operators of all hazardous waste facilities except as 335-14-5-.01(1) provides otherwise.

(2) Design and operation of facility. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, groundwater, or surface water which could threaten human health or the environment.

(3) Required equipment. All facilities must be equipped with the following, unless it can be demonstrated to the Department's satisfaction that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, ADEM Field Operations Division or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(4) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment,

and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency. Documentation of testing and maintenance must be recorded in the facility operating record as described in 335-14-5-.05(4).

(5) Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Department has ruled that such a device is not required under 335-14-5-.03(3).

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Department has ruled that such a device is not required under 335-14-5-.03(3).

(6) Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Department's satisfaction that aisle space is not needed for any of these purposes.

(7) **[Reserved].**

(8) Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

1. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

2. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

3. Agreements with ADEM Field Operations Division emergency response teams, emergency response contractors, and equipment suppliers; and

4. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State of Alabama or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

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335-14-5-.04 Contingency Plan and Emergency Procedures.

(1) Applicability. The requirements of 335-14-5-.04 apply to owners and operators of all hazardous waste facilities, except as 335-14-5-.01(1) provides otherwise.

(2) Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(3) Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with 335-14-5-.04(2) and (7) in response to fires, explosions, or any unpermitted sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of 335-14-5. The owner or operator may develop one contingency plan which meets all regulatory requirements. The Department recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan must describe arrangements agreed to by local Law enforcement, fire departments, hospitals, contractors, and ADEM Field Operations

Division and local emergency response teams to coordinate emergency services, pursuant to 335-14-5-.03(8).

(d) The plan must list names, and office and home addresses, and phone numbers of all persons qualified to act as emergency coordinator (see 335-14-5-.04(6)), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Department at the time of certification, rather than at the time of permit application.

(e) The plan must include a list of all emergency equipment at the facility [such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external)], and decontamination equipment, where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires). All evacuation routes should be depicted on a map to be included with the evacuation plan.

(4) Copies of the contingency plan. A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local law enforcement, fire departments, hospitals, and ADEM Field Operations Division and local emergency response teams that may be called upon to provide emergency services. Documentation of compliance with this requirement must be maintained at the facility.

(5) Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended if necessary, whenever:

(a) The facility permit is revised;

(b) The plan fails in an emergency;

(c) The facility changes – in its design, construction, operation, maintenance, or other circumstances – in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

(6) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(7) Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

1. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

2. Notify appropriate State of Alabama or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility (release of hazardous waste or hazardous waste constituents from the active portion of the facility is defined as such a threat), he must report his findings as follows:

1. If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

2. He must immediately notify the Alabama Emergency Management Agency (800/843-0699, 24 hours a day), the National Response Center (800/424-8802 or 202/267-2675, 24 hours a day), and the Department (334/271-7700 between 8:00 a.m. and 5:00 p.m., Monday through Friday). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health or the environment outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion at the facility.

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

1. No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Department. The report must include:

1. Name, address, and telephone number of the owner or operator.

2. Name, address, and telephone number of the facility;

3. Date, time, and type of incident (e.g., fire, explosion);

4. Name and quantity of material(s) involved;

5. The extent of injuries, if any:

6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

7. Estimated quantity and disposition of recovered material that resulted from the incident.

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335-14-5-.05 Manifest System, Recordkeeping and Reporting.

(1) Applicability.

(a) The requirements of 335-14-5-.05 apply to owners and operators of both on-site and off-site facilities, except as 335-14-5-.01(1) provides otherwise. 335-14-5-.05(2), (3), and (7) do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, or to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 335-14-7-.13(4)(a). 335-14-5-.05(4)(b)9. only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

(2) Use of manifest system.

(a) [Reserved].

1. If a facility receives hazardous waste accompanied by a manifest, the owner, operator or his/her agent must sign and date the manifest as indicated in 335-14-5-.05(2)(a)2. to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

2. If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator or his agent must:

(i) Sign and date each copy of the manifest;

(ii) Note any discrepancies (as defined in 335-14-5-.05(3)) on each copy of the manifest;

(iii) Immediately give the transporter at least one copy of the manifest;

(iv) Within 30 days of delivery, send a copy (Page 2) of the manifest to the generator;

(v) Paper manifest submission requirements are:

(I) Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy (Page 1) of any paper manifest and any paper continuation sheet to the EPA's e-Manifest system for purposes of data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail/submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

(II) Options for compliance on June 30, 2021. Beginning on June 30, 2021, the requirement to submit the top copy (Page 1) of the paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made to the electronic mail/submission address specified at the e-Manifest program website's directory of services; and

(vi) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

3. The owner or operator of a facility receiving hazardous waste subject to 335-14-3-.09 from a foreign source must:

(i) Additionally list the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a Continuation Sheet(s) (EPA Form 8700-22A); and

(ii) Send a copy of the manifest within thirty (30) days of delivery to EPA using the addresses listed in 335-14-3-.09(3) until the facility can submit such a copy to the e-Manifest system per 335-14-5-.05(2)(a)2.(v).

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

1. Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2. Note any significant discrepancies (as defined in 335-14-5-.05(3)(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper.

3. Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

4. Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

5. Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 335-14-3.

(d) Within three (3) working days of the receipt of a shipment subject to 335-14-3-.09, the owner or operator of the facility must provide a copy of the movement document bearing all required signatures to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original copy of the movement document must be maintained at the facility for at least three (3) years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, provided that copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system, for which the owner or operator of a facility bears no responsibility.

(e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated Federally) as hazardous wastes under its state hazardous waste program. Facilities must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance with 335-14-3-.02(1)(a)3., and used in accordance with this section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

1. Any requirement for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 40 C.F.R. § 262.25(a).

2. Any requirement to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

3. Any requirement for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment.

4. Any requirement for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the electronic manifest system, provided that such copies are readily available for viewing and production if requested by EPA or the Department.

5. No owner or operator may be held liable for the inability to produce an electronic manifest for inspection if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

1. Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;

2. The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;

3. Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system; and

4. The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall retain this original copy among its records for at least 3 years from the date of delivery of the waste.

(j) Imposition of user fee for manifest submissions.

1. As prescribed in 40 CFR § 264.1311, and determined in 40 CFR § 264.1312, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR § 264.1313.

2. An owner or operator subject to user fees under this section shall make user fee payments in accordance with the requirements of 40 CFR § 264.1314, subject to the informal fee dispute resolution process of 40 CFR § 264.1316, and subject to the sanctions for delinquent payments under 40 CFR § 264.1315.

(k) Electronic manifest signatures shall meet the criteria described in 40 C.F.R. § 262.25(a).

(l) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person (e.g., waste handler) shown on the manifest.

1. Interested persons must make all corrections to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for such corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

2. Each correction submission must include the following information:

(i) The Manifest Tracking Number and date of receipt by the facility of the original manifest(s) for which data are being corrected;

(ii) The item number(s) of the original manifest that is the subject of the submitted correction(s); and

(iii) For each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

3. Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of his or her knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete:

(i) The certification statement must be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

4. Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

5. Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in 335-14-5-.05(2)(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

(3) Manifest discrepancies.

(a) Manifest discrepancies are:

1. Significant differences (as defined by 335-14-5-.05(3)(b)) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

2. Rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept; or

3. Container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(b).

(b) Significant differences in quantity are: For bulk waste, variations greater than 10 percent by weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences which can be discovered by inspection or waste analysis, such as

waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator and the Department a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(d) Upon rejecting the waste or identifying a container residue that exceeds the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(b), the facility must consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility must send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

1. While the facility is making arrangements for forwarding rejected wastes or residues to another facility under 335-14-5-.05(3), it must ensure that either the delivering transporter retains custody of the waste, or, the facility must provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under 335-14-5-.05(3)(e) or (f).

(e) Except as provided in 335-14-5-.05(3)(e)7, for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility is required to prepare a new manifest in accordance with 335-14-3-.02(1)(a) and the following instructions:

1. Write the generator's U.S. EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space for Item 5.

2. Write the name of the alternate designated facility and facility's U.S. EPA ID number in the designated facility block (Item 8) of the new manifest.

3. Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4. Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a).

5. Write the DOT description for the rejected load or the residue in Item 9 (U.S. DOT Description) of the new manifest and write the container types, quantity, and volume(s) of waste.

6. Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator indentified in Item 5 of the new manifest.

7. For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility must retain a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility must use a new manifest and comply with 335-14-5-.05(3)(e)1-6.

(f) Except as provided by 335-14-5-.05(3)(f)7 of this section, for rejected wastes and residues that must be sent back to the generator, the facility is required to prepare a new manifest in accordance with 335-14-3-.02(1)(a) and the following instructions:

1. Write the facility's U.S. EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

2. Write the name of the initial generator and the generator's U.S. EPA ID number in the designated facility block (Item 8) of the new manifest.

3. Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4. Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a).

5. Write the DOT description for the rejected load or the residue in Item 9 (U.S. DOT Description) of the new manifest and write the container types, quantity, and volume(s) of waste.

6. Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation.

7. For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility must retain a copy for its records and then give the remaining copies of the manifest to the transporter to

accompany the shipment. If the original manifest is not used, then the facility must use a new manifest and comply with 335-14-5-.05(3)(f)1-6. and 8.

8. For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility must also comply with the exception reporting requirements in 335-14-3-.04(3).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(7) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or the generator, the facility must amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility must also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and must re-sign and date the manifest to certify to the information as amended. The facility must retain the amended manifest for at least three years from the date of amendment, and must within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended.

(4) Operating record.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record for three years (unless a different retention time is specified below):

1. A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by 335-14-5 - Appendix I. This information must be maintained in the operating record until closure of the facility;

2. The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram that shows each cell or disposal area. For all facilities, this information must include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;

3. Records and results of waste analyses performed as specified in 335-14-5-.02(4) and (8), 335-14-5-.14(15), 335-14-5-.15(2), 335-14-5-.27, 335-14-5-.28, 335-14-5-.29, 335-14-9-.01(4), and 335-14-9-.01(7);

4. Summary reports and details of all incidents that require implementing the contingency plan as specified in 335-14-5-.04(7)(i);

5. Records and results of inspections as required by 335-14-5-.02(6)(d) (except these data need be kept only three years);

6. Monitoring, testing, or analytical data, and corrective action where required by 335-14-5-.06, 335-14-5-.02(10), 335-14-5-.10(2), 335-14-5-.10(4), 335-14-5-.10(6), 335-14-5-.11(3), 335-14-5-.11(4), 335-14-5-.11(7), 335-14-5-.12(3), 335-14-5-.12(4), 335-14-5-.12(5), 335-14-5-.13(7), 335-14-5-.13(9), 335-14-5-.13(11), 335-14-5-.14(3), 335-14-5-.14(4), 335-14-5-.14(5), 335-14-5-.14(10), 335-14-5-.24(3), 335-14-5-.27, 335-14-5-.27, 335-14-5-.28, 335-14-5-.28, and 335-14-5-.29. This information must be maintained in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup which must be maintained in the operating record until closure of the facility;

7. For off-site facilities, notices to generators as specified in 335-14-5-.02(3)(b);

8. All closure cost estimates under 335-14-5-.08(3), and, for disposal facilities, all post-closure cost estimates under 335-14-5-.08(5). This information must be maintained in the operating record until closure of the facility;

9. A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage, or disposal in that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment;

10. Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to 335-14-9-.01(5), a petition pursuant to 335-14-9-.01(6), or a certification under 335-14-9-.01(8), and the applicable notice required by a generator under 335-14-9-.01(7). This information must be maintained in the operating record until closure of the facility;

11. For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

12. For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

13. For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator of a treatment facility under 335-14-9-.01(7) and 335-14-9-.01(8), whichever is applicable;

14. For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under 335-14-9-.01(7), except for the manifest number, and the certification and demonstration, if applicable, required under 335-14-9-.01(8), whichever is applicable;

15. For an off-site storage facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

16. For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

17. Any records required under 335-14-5-.01(1)(j)13;

18. Monitoring, testing or analytical data where required by 335-14-5-.15(8) must be maintained in the operating record for five years; and

19. Certifications as required by 335-14-5-10(7)(f) must be maintained in the operating record until closure of the facility.

(5) Availability, retention, and disposition of records.

(a) All records, including plans, required under 335-14-5 must be furnished upon request, and made available at reasonable times for inspection by any officer, employee, or representative of the Department.

(b) The retention period for all records required under 335-14-5 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Department.

(c) A copy of records of waste disposal locations and quantities under 335-14-5-.05(4)(b)2. must be submitted to the Department and local land authority upon closure of the facility.

(6) Biennial report. The owner or operator must prepare and submit a single copy of a biennial report to the Department by March 1 of each even numbered year. The biennial report must be submitted on the forms supplied by the Department. The owner or operator must retain copies of each biennial report for, at least, three (3) years from the due date of the report. The report must cover facility activities during the previous calendar year and must include:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number, name, and location address of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) **[Reserved];**

(g) The most recent closure cost estimate under 335-14-5-.08(3), and, for disposal facilities, the most recent post-closure cost estimate under 335-14-5-.08(5);

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

(j) The certification signed by the owner or operator of the facility or his authorized representative.

(7) Unmanifested waste report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in 335-14-4-.02(1)(e)2., and if the waste is not excluded from the manifest requirement, then the owner or operator must prepare and submit a single copy of a report to the Department within 15 days after receiving the waste. The owner or operator must retain a copy of each unmanifested waste report for, at least, three (3) years from the due date of the report. Such report must be designated "Unmanifested Waste Report" and include the following information:

1. The EPA identification number, name, and address of the facility;

2. The date the facility received the waste;

3. The EPA identification number, name, and address of the generator and the transporter, if available;

4. A description and the quantity of each unmanifested hazardous waste the facility received;

5. The method of treatment, storage, or disposal for each hazardous waste;

6. The certification signed by the owner or operator of the facility or his authorized representative; and

7. A brief explanation of why the waste was unmanifested, if known.

(b) **[Reserved]**

(8) Additional reports. In addition to submitting the biennial reports and unmanifested waste reports described in 335-14-5-.05(6) and (7), the owner or operator must also report to the Department:

(a) Releases, fires, and explosions as specified in 335-14-5-.04(7)(j);

(b) Facility closures as specified in 335-14-5-.07(6); and

(c) As otherwise required by 335-14-5-.06, 335-14-5-.11 through 335-14-5-.14, 335-14-5-.27, and 335-14-5-.28.

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335-14-5-.06 Releases from Solid Waste Management Units.

(1) Applicability.

(a)1. Except as provided in 335-14-5-.06(1)(b), the regulations in 335-14-5-.06 apply to owners or operators of facilities that treat, store, or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in 335-14-5-.06(1)(a)(2) for all wastes (or constituents thereof) contained in solid waste management units at the facility regardless of the time at which waste was placed in such units.

2. All solid waste management units must comply with the requirements in 335-14-5-.06(12). A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of 335-14-5-.06(2) through (11) in lieu of 335-14-5-.06(12) for purposes of detecting, characterizing, and responding to releases to the uppermost aquifer. The financial responsibility requirements of 335-14-5-.06(12) apply to regulated units.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under 335-14-5-.06 if:

1. The owner or operator is exempted under 335-14-5-.01;

2. He operates a unit which the Department finds:

(i) Is an engineered structure,

(ii) Does not receive or contain liquid waste or waste containing free liquids,

(iii) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off,

(iv) Has both inner and outer layers of containment enclosing the waste,

(v) Has a leak detection system built into each containment layer,

(vi) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods, and

(vii) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

3. The Department finds, pursuant to 335-14-5-.13(11)(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of 335-14-5-.13(9) has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under 335-14-5-.06(1)(b) can only relieve an owner or operator of responsibility to meet the requirements of 335-14-5-.06 during the post-closure care period;

4. The Department finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under 335-14-5-.07(8). This demonstration must be certified by a licensed professional geologist and/or registered professional engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under 335-14-5-.06(1)(b) on assumptions that maximize the rate of liquid migration; or

5. He designs and operates a pile in compliance with 335-14-5-.12(1)(c).

(c) The requirements under 335-14-5-.06 apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the requirements of 335-14-5-.06:

1. Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

2. Apply during the post-closure care period under 335-14-5-.07(8) if the owner or operator is conducting a detection monitoring program under 335-14-5-.06(9); or

3. Apply during the compliance period under 335-14-5-.06(7) if the owner or operator is conducting a compliance monitoring program under 335-14-5-.06(10) or a corrective action program under 335-14-5-.06(11).

(d) Requirements in 335-14-5-.06 may apply to miscellaneous units when necessary to comply with 335-14-5-.24(2) through (4).

(e) The regulations of 335-14-5-.06 apply to all owners and operators subject to the requirements of 335-14-8-.01(1)(c)7., when the Department issues either a post-closure permit or an enforceable document (as defined in 335-14-8-.01(1)(c)7.) to the facility. When the Department issues an enforceable document, references in 335-14-5-.06 to "in the permit" mean "in the enforceable document".

(f) The Department may replace all or part of the requirements of 335-14-5-.06(2) through (11) applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit [or in an enforceable document as defined in 335-14-8-.01(1)(c)7.] where the Department determines that:

1. The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2. It is not necessary to apply the groundwater monitoring and corrective action requirements of 335-14-5-.06(2) through (11) because alternative requirements will protect human health and the environment.

(2) Required programs.

(a) Owners and operators subject to 335-14-5-.06 must conduct a monitoring and response program as follows:

1. Whenever hazardous constituents under 335-14-5-.06(4) from a regulated unit are detected at the compliance point under 335-14-5-.06(6), the owner or operator must institute a compliance monitoring program under 335-14-5-.06(10).

Detected is defined as statistically significant evidence of contamination as described in 335-14-5-.06(9)(f);

2. Whenever the groundwater protection standard under 335-14-5-.06(3) is exceeded, the owner or operator must institute a corrective action program under 335-14-5-.06(11). Exceeded is defined as statistically significant evidence of increased contamination as described in 335-14-5-.06(10)(d);

3. Whenever hazardous constituents under 335-14-5-.06(4) from a regulated unit exceed concentration limits under 335-14-5-.06(5) in groundwater between the compliance point under 335-14-5-.06(6) and the downgradient facility property boundary, the owner or operator must institute a corrective action program under 335-14-5-.06(11); or

4. In all other cases, the owner or operator must institute a detection monitoring program under 335-14-5-.06(9).

(b) The Department will specify in the facility permit the specific elements of the monitoring and response program. The Department may include one or more of the programs identified in 335-14-5-.06(2)(a) in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Department will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be undertaken.

(3) Groundwater protection standard. The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under 335-14-5-.06(4) detected in the groundwater from a regulated unit do not exceed the concentration limits under 335-14-5-.06(5) in the uppermost aquifer underlying the waste management area beyond the point of compliance under 335-14-5-.06(6) during the compliance period under 335-14-5-.06(7). The Department will establish this groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater.

(4) Hazardous constituents.

(a) The Department will specify in the facility permit the hazardous constituents to which the groundwater protection standard of 335-14-5-.06(3) applies. Hazardous constituents are constituents identified in 335-14-2 - Appendix VIII that have been detected in groundwater in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Department has excluded them under 335-14-5-.06(4)(b).

(b) The Department will exclude a 335-14-2 - Appendix VIII constituent from the list of hazardous constituents specified in the facility permit if it finds that the constituent is not capable of posing a substantial present or potential

hazard to human health or the environment. In deciding whether to grant an exemption, the Department will consider the following:

1. Potential adverse effects on groundwater quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of groundwater and the direction of groundwater flow;

(iv) The proximity and withdrawal rates of groundwater users;

(v) The current and future uses of groundwater in the area;

(vi) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

2. Potential adverse effects on hydraulically- connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of groundwater, and the direction of groundwater flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and their cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to the waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under 335-14-5-.06(4)(b) about the use of groundwater in the area around the facility, the Department will consider any identification of underground sources of drinking water and exempted aquifers made by the Department.

(5) Concentration limits.

(a) The Department will specify in the facility permit concentration limits in the groundwater for hazardous constituents established under 335-14-5-.06(4). The concentration of a hazardous constituent:

1. Must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or

2. Must not exceed the maximum contaminant levels for inorganic and organic chemicals in drinking water listed in 335-7-2-.03(1) or 335-7-2-.04(1) or Table I below, if the background level of the constituent is below the value given in either rule; or

TABLE 1
MAXIMUM CONCENTRATION OF
CONSTITUENTS FOR GROUNDWATER PROTECTION

Constituent	Maximum Concentration[1]
Silver	.01

[1]Milligrams per liter.

[**Note**: The standard for this parameter has been modified pursuant to the Federal Safe Drinking Water Act; however, this change has not been incorporated by EPA into the federal hazardous waste regulations under RCRA.]

3. Must not exceed an alternate limit established by the Department under 335-14-5-.06(5)(b).

(b) The Department will establish an alternate concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Department will consider the following factors:

1. Potential adverse effects on groundwater quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of groundwater and the direction of groundwater flow;

(iv) The proximity and withdrawal rates of groundwater users;

(v) The current and future uses of groundwater in the area;

(vi) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

2. Potential adverse effects on hydraulically- connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of groundwater and the direction of groundwater flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and their cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under 335-14-5-.06(5)(b) about the use of groundwater in the area around the facility the Department will consider any identification of groundwater sources of drinking water and exempted aquifers made by the Department.

(6) Point of compliance.

(a) The Department will specify in the facility permit the point of compliance at which the groundwater protection standard of 335-14-5-.06(3) applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

1. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

2. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(7) Compliance period.

(a) The Department will specify in the facility permit the compliance period during which the groundwater protection standard of 335-14-5-.06(3) applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting and the closure period).

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of 335-14-5-.06(10).

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in 335-14-5-.06(7)(a), the compliance period is extended until the owner or operator can demonstrate that the groundwater protection standard of 335-14-5-.06(3) has not been exceeded for a period of three consecutive years.

(8) General groundwater monitoring requirements. The owner or operator must comply with the following requirements for any groundwater monitoring program developed to satisfy 335-14-5-.06(9), (10), or (11):

(a) The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

1. Represent the quality of background groundwater that has not been affected by leakage from a regulated unit;

(i) A determination of background groundwater quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(I) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(II) Sampling at other wells will provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells; and

2. Represent the quality of groundwater passing the point of compliance; and

3. Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate groundwater monitoring systems are not required for each regulated unit provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the groundwater in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater. Monitoring wells must be operated and maintained in a manner to prevent soil, surface water, and/or groundwater contamination. This requirement includes the installation of protective barriers around monitoring wells where necessary to prevent damage to the well from traffic or other causes or as

required on a case-by-case basis by the Department. All monitoring wells must have functional key or combination locks on the wellhead covers to prevent unauthorized access. All monitoring wells must be assigned an identifying number by the facility, and such numbers must be permanently affixed to the outer casing of each monitoring well.

(d) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the waste management area. At a minimum the program must include procedures and techniques for:

1. Sample collection;

2. Sample preservation and shipment;

3. Analytical procedures; and

4. Chain of custody control.

(e) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents in groundwater samples.

(f) The groundwater monitoring program must include a determination of the groundwater surface elevation each time groundwater is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the permit upon approval by the Department. This sampling procedure shall be:

1. A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants, or

2. An alternate sampling procedure proposed by the owner or operator and approved by the Department.

(h) The owner or operator will specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the Department, will be specified in the permit. The statistical test chosen shall be conducted separately for each hazardous

constituent in each well. Where practical quantification limits (pqls) are used in any of the following statistical procedures to comply with 335-14-5-.06(8)(i)5., the pql must be proposed by the owner or operator and approved by the Department. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in 335-14-5-.06(8)(i).

1. A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

2. An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

3. A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

4. A control chart approach that gives control limits for each constituent.

5. Another statistical test method submitted by the owner or operator and approved by the Department.

(i) Any statistical method chosen under 335-14-5-.06(8)(h) for specification in the permit shall comply with the following performance standards, as appropriate:

1. The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

3. If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Department if it finds it to be protective of human health and the environment.

4. If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the Department if it finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Department under 335-14-5-.06(8)(h) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Groundwater monitoring data collected in accordance with 335-14-5-.06(8)(g) including actual levels of constituents must be maintained in the facility operating record. The Department will specify in the permit when the data must be submitted for review.

(9) Detection monitoring program. An owner or operator required to establish a detection monitoring program under 335-14-5-.06 must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor for indicator parameters (e.g., pH, specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in groundwater. The Department will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

1. The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

2. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

3. The detectability of indicator parameters, waste constituents, and reaction products in groundwater; and

4. The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the groundwater background;

(b) The owner or operator must install a groundwater monitoring system at the compliance point as specified under 335-14-5-.06(6). The groundwater monitoring system must comply with 335-14-5-.06(8)(a)2., (8)(b), and (8)(c);

(c) The owner or operator must conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to 335-14-5-.06(9)(a) in accordance with 335-14-5-.06(8)(g). The owner or operator must maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under 335-14-5-.06(8)(h).

(d) The Department will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit conditions under 335-14-5-.06(9)(a) in accordance with 335-14-5-.06(8)(g).

(e) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually;

(f) The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in the permit pursuant to 335-14-5-.06(9)(a) at a frequency specified under 335-14-5-.06(9)(d).

1. In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under 335-14-5-.06(8)(h). These method(s) must compare data collected at the compliance point(s) to the background groundwater quality data.

2. The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well at the compliance point within a reasonable period of time after completion of sampling. The Department will specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(g) If the owner or operator determines pursuant to 335-14-5-.06(9)(f) that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to 335-14-5-.06(9)(a) at any monitoring well at the compliance point, he or she must:

1. Notify the Department of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

2. Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of 335-14-5 - Appendix IX are present, and

if so, in what concentration. However, the Department, on a discretionary basis, may allow sampling for a site-specific subset of constituents from the 335-14-5 – Appendix IX list and other representative/related waste constituents.

3. For any 335-14-5 - Appendix IX compounds found in the analysis pursuant to 335-14-5-.06(9)(g)2., the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Director and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds in 335-14-5-.06(9)(g)2., the hazardous constituents found during this initial 335-14-5 - Appendix IX analysis will form the basis for compliance monitoring.

4. Within 90 days, submit to the Department an application for a permit modification to establish a compliance monitoring program meeting the requirements of 335-14-5-.06(10). The application must include the following information:

(i) An identification of the concentration of any 335-14-5 - Appendix IX constituent detected in the groundwater at each monitoring well at the compliance point;

(ii) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of 335-14-5-.06(10).

(iii) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of 335-14-5-.06(10).

(iv) For each hazardous constituent detected at the compliance point, a proposed concentration limit under 335-14-5-.06(5)(a)1. or 2. or a notice of intent to seek an alternate concentration limit under 335-14-5-.06(5)(b).

5. Within 180 days, submit to the Department:

(i) All data necessary to justify an alternate concentration limit sought under 335-14-5-.06(5)(b); and

(ii) An engineering feasibility plan for a corrective action program necessary to meet the requirements of 335-14-5-.06(11), unless:

(I) All hazardous constituents identified under 335-14-5-.06(9)(g)2. are listed in 335-7-2-.03(1), 335-7-2-.04(1), or Table 1 of 335-14-5-.06(5) and their concentrations do not exceed the respective values given in those Tables; or

(II) The owner or operator has sought an alternate concentration limit under 335-14-5-.06(5)(b) for every hazardous constituent identified under 335-14-5-.06(9)(g)2.

6. If the owner or operator determines, pursuant to 335-14-5-.06(9)(f), that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to 335-14-5-.06(9)(a) at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The owner or operator may make a demonstration under 335-14-5-.06(9)(g) in addition to, or in lieu of, submitting a permit modification application under 335-14-5-.06(9)(g)4.; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in 335-14-5-.06(9)(g)4. unless the demonstration made under 335-14-5-.06(9)(g) successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under 335-14-5-.06(9)(g), the owner or operator must:

(i) Notify the Department in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under 335-14-5-.06(9)(g);

(ii) Within 90 days, submit a report to the Department which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(iii) Within 90 days, submit to the Department an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(iv) Continue to monitor in accordance with the detection monitoring program established under 335-14-5-.06(9).

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of 335-14-5-.06(9), he or she must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(10) Compliance monitoring program. An owner or operator required to establish a compliance monitoring program under 335-14-5-.06 must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must monitor the groundwater to determine whether regulated units are in compliance with the groundwater protection standard under 335-14-5-.06(3). The Department will specify the groundwater protection standard in the facility permit, including:

1. A list of the hazardous constituents identified under 335-14-5-.06(4);

2. Concentration limits under 335-14-5-.06(5) for each of those hazardous constituents;

3. The compliance point under 335-14-5-.06(6); and

4. The compliance period under 335-14-5-.06(7);

(b) The owner or operator must install a groundwater monitoring system at the compliance point as specified under 335-14-5-.06(6). The groundwater monitoring system must comply with 335-14-5-.06(8)(a)2., (8)(b), and (8)(c);

(c) The Department will specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with 335-14-5-.06(8)(g) and (h).

1. The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with 335-14-5-.06(8)(g).

2. The owner or operator must record groundwater analytical data as measured and in form necessary for the determination of statistical significance under 335-14-5- .06(8)(h) for the compliance period of the facility.

(d) The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to 335-14-5-.06(10)(a), at a frequency specified under 335-14-5-.06(10)(f).

1. In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under 335-14-5-.06(8)(h). The method(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with 335-14-5-.06(5).

2. The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Department will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(e) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

(f) The Department will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with 335-14-5-.06(8)(g).

(g) Annually, the owner or operator must determine whether additional hazardous constituents from 335-14-5-Appendix IX, which could possibly be present but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in 335-14-5-.06(9)(f). To accomplish this, the owner or operator must

consult with the Department to determine on a case-by-case basis: which sample collection event during the year will involve enhanced sampling; the number of monitoring wells at the compliance point to undergo enhanced sampling; the number of samples to be collected from each of these monitoring wells; and the specific constituents from 335-14-5-Appendix IX for which these samples must be analyzed. If the enhanced sampling event indicates that 335-14-5-Appendix IX constituents are present in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Department, and repeat the analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the Department within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the Department within seven days after completion of the initial analysis and add them to the monitoring list.

(h) If the owner or operator determines, pursuant to 335-14-5-.06(10)(d) that any concentration limits under 335-14-5-.06(5) are being exceeded at any monitoring well at the point of compliance, he or she must:

1. Notify the Department of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

2. Submit to the Department an application for a permit modification to establish a corrective action program meeting the requirements of 335-14-5-.06(11) within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Department under 335-14-5-.06(9)(g)5. The application must at a minimum include the following information:

(i) A detailed description of corrective actions that will achieve compliance with the groundwater protection standard specified in the permit under 335-14-5-.06(10)(a); and

(ii) A plan for a groundwater monitoring program that will demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of 335-14-5-.06(10).

(i) If the owner or operator determines, pursuant to 335-14-5-.06(10)(d), that the groundwater concentration limits under 335-14-5-.06(10) are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. In making a demonstration under 335-14-5-.06(10)(i), the owner or operator must:

1. Notify the Department in writing within seven days that he intends to make a demonstration under 335-14-5-.06(10);

2. Within 90 days, submit a report to the Department which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

3. Within 90 days, submit to the Department an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

4. Continue to monitor in accord with the compliance monitoring program established under 335-14-5-.06(10).

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(11) Corrective action program. An owner or operator required to establish a corrective action program under 335-14-5-.06 must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the groundwater protection standard under 335-14-5-.06(3). The Department will specify the groundwater protection standard in the facility permit, including:

1. A list of the hazardous constituents identified under 335-14-5-.06(4);

2. Concentration limits under 335-14-5-.06(5) for each of those hazardous constituents;

3. The compliance point under 335-14-5-.06(6); and

4. The compliance period under 335-14-5-.06(7).

(b) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the groundwater protection standard is exceeded. The Department will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of 335-14-5-.06(10)(i)2.

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under 335-14-5-.06(10) and must be as effective as that program in determining compliance with the groundwater protection standard under 335-14-5-.06(3) and in determining the success of a corrective action program under 335-14-5-.06(11)(e), where appropriate.

(e) In addition to the other requirements of 335-14-5-.06(11), the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under 335-14-5-.06(4) that exceed concentration limits under 335-14-5-.06(5) in groundwater:

1. Between the compliance point under 335-14-5-.06(6) and the downgradient property boundary;

2. Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Department that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

3. Corrective action measures under 335-14-5-.06(11)(e) must be initiated and completed within a reasonable period of time considering the extent of contamination; and

4. Corrective action measures under 335-14-5-.06(11)(e) may be terminated once the concentrations of hazardous constituents under 335-14-5-.06(4) are reduced to levels below their respective concentration limits under 335-14-5-.06(5).

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the groundwater monitoring program under 335-14-5-.06(11)(d), that the groundwater protection standard of 335-14-5-.06(3) has not been exceeded for a period of three consecutive years. After such demonstration has been determined adequate by the Department, the owner or operator shall implement a monitoring plan under 335-14-5-.06(9) or (10) as specified by the Department.

(g) The owner or operator must report in writing to the Department on the effectiveness of the corrective action program. The owner or operator must submit these reports annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(i) The owner or operator must provide financial assurance for corrective action in compliance with 335-14-5-.06(12)(e).

(12) Corrective action for solid waste management units.

(a) The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action will be specified in the permit in accordance with 335-14-5-.06 and 335-14-5-.19. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and land use controls as required by 335-14-5-.06(12)(f).

(c) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Department that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(d) 335-14-5-.06(12) does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing or disposing of hazardous wastes that are not remediation wastes.

(e) The owner or operator must maintain a detailed estimate of the cost of corrective action required by 335-14-5-.06(11, 335-14-5-.06(12)(b), and 335-14-5-.06(12)(c). The cost estimate must be in accordance with 335-14-5-.08(10). Financial assurance must be provided in accordance with 335-14-5-.08(11).

(f) Where corrective actions will result in hazardous constituents remaining in place at a facility in concentrations exceeding those appropriate for unrestricted use, the owner or operator must:

1. Establish appropriate land-use controls designed to minimize exposure to hazardous constituents remaining in place and to limit inappropriate uses of the contaminated areas of the facility; and

2. include the following notice in any deed, mortgage, deed to secure debt, lease, rental agreement, or other instrument given or caused to be given by the owner or operator which creates an interest in the facility or the contaminated area of the facility: "This property has been cleaned up to standards less stringent than those required for unrestricted use due to the presence of substances regulated under state law. Certain uses of this property may require additional cleanup. Contact the property owner or the Alabama Department of Environmental Management for further information concerning this property"; and

3. submit documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Rule 335-5.

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335-14-5-.07 Closure and Post-Closure.

(1) Applicability. Except as 335-14-5-.01(1) provides otherwise:

(a) 335-14-5-.07(2) through (6) (which concern closure) apply to the owners and operators of all hazardous waste management facilities and CAMUs; and

(b) 335-14-5-.07(7) through (11) (which concern post-closure care) apply to the owners and operators of:

1. All hazardous waste disposal facilities;

2. Waste piles, surface impoundments, and drip pads from which the owner or operator intends to remove the wastes at closure to the extent that these paragraphs are made applicable to such facilities in 335-14-5-.12(9), 335-14-5-.11(9), or 335-14-5-.23(6);

3. Tank systems that are required under 335-14-5-.10(8) to meet the requirements for landfills;

4. Containment buildings that are required under 335-14-5-.30(3) to meet the requirements for landfills;

5. Corrective action management units in which wastes remain after closure; and

6. Other hazardous waste management units which are unable to demonstrate closure by removal.

(c) The Department may replace all or part of the requirements of 335-14-5-.07 (and the unit-specific standards referenced in 335-14-5-.07(2)(c) applying to a regulated unit, with alternative requirements set out in a permit or in an enforceable document (as defined in 335-14-8-.01(1)(c)7.), where the Department determines that:

1. The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2. It is not necessary to apply to closure requirements of 335-14-5-.07 (and those referenced herein) because the alternative requirements will protect human health and the environment and will satisfy the closure performance standard of 335-14-5-.07(2)(a) and (b).

(2) Closure performance standards. The owner or operator must close the facility in a manner that:

(a) Minimizes the need for further maintenance; and

(b) Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Complies with the closure requirements of 335-14-5-.07, including, but not limited to, the requirements of 335-14-5-.09(9), 335-14-5-.10(8), 335-14-5-.11(9), 335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), 335-14-5-.15(12), 335-14-5-.19(1) through (3), 335-14-5-.23(6), 335-14-5-.24(2) through (4), 335-15-5-.30(3), and 335-14-7-.08(3) [40 CFR 266.102(e)(11)].

(3) Closure plan: amendment of plan.

(a) Written Plan.

1. The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments, waste piles, and drip pads from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by 335-14-5-.11(9)(c)1.(i), 335-14-5-.12(9)(c)1.(i), and 335-14-5-.23(6)(c)1.(i) to have

contingent closure plans. The plan must be submitted with the permit application, in accordance with 335-14-8-.02(5)(b)13., and approved by the Director as part of the permit issuance procedures. In accordance with 335-14-8-.03(3), the approved closure plan will become a condition of any AHWMMA permit.

2. The Director's approval of the plan must ensure that the approved closure plan is consistent with 335-14-5-.07(2) through (6) and the applicable requirements of 335-14-5-.06(1) et seq., 335-14-5-.09(9), 335-14-5-.10(8), 335-14-5-.11(9), 335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), 335-14-5-.15(12), 335-14-5-.19(1) through (3), 335-14-5-.23(6), 335-14-5-.24(2), 335-14-5-.30(3) and 335-14-7-.08(3) [40 CFR 266.102(e)(11)]. Until final closure is completed and certified in accordance with 335-14-5-.07(6), a copy of the approved plan and all approved revisions must be furnished to the Director upon request, including requests by mail.

(b) Content of plan. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

1. A description of how each hazardous waste management unit at the facility will be closed in accordance with 335-14-5-.07(2);

2. A description of how final closure of the facility will be conducted in accordance with 335-14-5-.07(2). The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility;

3. An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

4. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;

5. A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control; and

6. A schedule for closure for each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of

partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.)

7. For facilities that use trust funds to establish financial assurance under 335-14-5-.08(4) and (6) and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

8. For facilities where the Department has applied alternative requirements at a regulated unit under 335-14-5-.06(1)(f), 335-14-5-.07(1)(c), and/or 335-14-5-.08(1)(e), either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

(c) Amendment of plan. The owner or operator must submit a written request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the procedures in 335-14-8. The written request must include a copy of the amended closure plan for review or approval by the Director.

1. The owner or operator may submit a written request to the Director for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

2. The owner or operator must submit a written request for a permit modification to authorize a change in the approved closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(iv) The owner or operator requests the Department to apply alternative requirements to a regulated unit under 335-14-5-.06(1)(f), 335-14-5-.07(1)(c), and/or 335-14-5-.08(1)(e).

3. The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment, waste pile, or drip pad that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under 335-14-5-.11(9)(c)1.(i), 335-14-5-.12(9)(c)1 .(i), or 335-14-5-.23(6)(c)1.(i) must submit an amended closure plan to the Department no later than 60 days from the date that the owner or operator or Director determines that the hazardous waste management unit must be closed as

a landfill, subject to the requirements of 335-14-5-.14(11), or no later than 30 days from that date if the determination is made during partial or final closure. The Department will approve, disapprove, or modify this amended plan in accordance with the procedures in 335-14-8. In accordance with 335-14-8-.03(3), the approved closure plan will become a condition of any AHWMMA permit issued.

4. The Department may request modifications to the plan under the conditions described in 335-14-5-.07(3)(c)2. The owner or operator must submit the modified plan within 60 days of the Department's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Department will be approved in accordance with the procedures in 335-14-8.

(d) Notification of partial closure and final closure.

1. The owner or operator must notify the Department in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or operator must notify the Department in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator must notify the Department in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

2. The date when he "expects to begin closure" must be either:

(i) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the Department that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Department may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of 335-14-5-.07(4)(d), no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the Department that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Department may approve an extension to this one-year limit.

3. If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under Section 3008 of RCRA, to cease receiving hazardous wastes or to close, then the requirements of 335-14-5-.07(3) do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in 335-14-5-.07(4).

(e) Nothing in 335-14-5-.07 shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

(4) Closure: time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in 335-14-5-.07(4)(d) and (e), at a hazardous waste management unit or facility, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Department may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

1.(i) The activities required to comply with 335-14-5-.07(4) will, of necessity, take longer than 90 days to complete; or

(ii)(I) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with 335-14-5-.07(4)(d) and (e);

(II) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(III) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2. He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in 335-14-5-.07(4)(d) and (e), at the hazardous waste management unit or facility. The Director may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

1.(i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(I) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with 335-14-5-.07(4)(d) and (e);

(II) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(III) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2. He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

(c) The demonstrations referred to in 335-14-5-.07(4)(a)l. and (b)l. must be made as follows:

1. The demonstrations in 335-14-5-.07(4)(a)l. must be made at least 30 days prior to the expiration of the 90-day period in 335-14-5-.07(4)(a); and

2. The demonstration in 335-14-5-.07(4)(b)l. must be made at least 30 days prior to the expiration of the 180-day period in 335-14-5-.07(4)(b), unless the owner or operator is otherwise subject to the deadlines in 335-14-5-.07(4)(d).

(d) The Department may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

1. The owner or operator requests a permit modification in compliance with all applicable requirements in 335-14-8 and in the permit modification request demonstrates that:

(i) The unit has the existing design capacity as indicated on the Part A Application to receive non-hazardous wastes; and

(ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under this part; and

(iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(v) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

2. The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under RCRA Section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under 335-14-5-.07(3)(b)7., as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

3. The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

4. The request to modify the permit and the demonstrations referred to in 335-14-5-.07(4)(d)1. and (d)2. are submitted to the Director no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of 335-14-5-.07, whichever is later.

(e) In addition to the requirements in 335-14-5-.07(4)(d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in 42 U.S.C. 3004(o)(1) and 3005(j)(1) or 42 U.S.C. 3004(o)(2) or (3) or 3005(j)(2), (3), (4), or (13) must:

1. Submit with the request to modify the permit:

(i) A contingent corrective measures plan, unless a corrective action plan has already been submitted under 335-14-5-.06(10); and

(ii) A plan for removing hazardous wastes in compliance with 335-14-5-.07(4)(e)2.; and

2. Remove all hazardous wastes from the unit by removing all hazardous liquids, and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

3. Removal of hazardous wastes must be completed no later than 90 days after the final receipt of hazardous wastes. The Director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

4. If a release that is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's groundwater

protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in 335-14-5-.06, the owner or operator of the unit:

(i) Must implement corrective measures in accordance with the approved contingent corrective measures plan required by 335-14-5-.07(4)(e)1. no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(ii) May continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(iii) May be required by the Director to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

5. During the period of corrective action, the owner or operator shall provide annual reports to the Director describing the progress of the corrective action program, compile all groundwater monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

6. The Director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in 335-14-5-.07(4)(e)4., or fails to make substantial progress in implementing corrective action and achieving the facility's groundwater protection standard or background levels if the facility has not yet established a groundwater protection standard.

7. If the owner or operator fails to implement corrective measures as required in 335-14-5-.07(4)(e)4. or if the Director determines that substantial progress has not been made pursuant to 335-14-5-.07(4)(e)6., he shall:

(i) Notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadlines in 335-14-5-.07(4)(a) and (b) and provide a detailed statement of reasons for this determination.

(ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

(iii) If the Director receives no written comments, the decision will become final five days after the close of the comment period. The Director will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within 15 days of the final notice and that closure must begin in accordance with the deadlines in 335-14-5-.07(4)(a) and (b).

(iv) If the Director receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide

the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Director determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in 335-14-5-.07(4)(a) and (b).

(v) The final determinations made by the Director under 335-14-5-.07(4)(e)7.(iii) and (iv) are not subject to administrative appeal.

(5) Disposal or decontamination of equipment, structures, and soils. During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in 335-14-5-.09(9), 335-14-5-.10(8), 335-14-5-.11(9), 335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), 335-14-5-.19(1) through (3), 335-14-5-.23(6), 335-14-5-.24, or 335-14-5-.30(3). By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of 335-14-3.

(6) Certification of closure. Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator must submit to the Director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the professional engineer's certification must be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for closure under 335-14-5-.08(4)(i).

(7) Survey plat.

(a) No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable requirements of 335-14-5-.07; and

(b) Where closure does not achieve the standard of unrestricted use, the owner or operator or other responsible person must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Division 335-5.

(8) Post-closure care and use of property.

(a)1. Post-closure care for each hazardous waste management unit subject to the requirements of 335-14-5-.07(8) through (11) must begin after completion of closure of the unit and continue for 30 years after that date, or for 30 years after the date of issuance of a post-closure permit or in an enforceable document (as defined in 335-14-8-.01(1)(c)7.), whichever is later. Post-closure care must consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of 335-14-5-.06, .11, .12, .13, .14, .23, and .24; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of 335-14-5-.06, .11, .12, .13, .14, .23, and .24.

2. Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the Department may, in accordance with the permit modification procedures in 335-14-8:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if it finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or reuse techniques indicate that the hazardous waste management unit or facility is secure); or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility if it finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(iii) The post-closure care period automatically extends through any time during which hazardous wastes remain in a hazardous waste management unit unless the owner/operator is able to demonstrate closure by removal in accordance with 335-14-8-.01(1)(c)5.

(b) The Department may require, at partial and final closure, continuation of any of the security requirements of 335-14-5-.02(5) during part or all of the post-closure care period when:

1. Hazardous wastes may remain exposed after completion of partial or final closure; or

2. Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the

function of the facility's monitoring systems, unless the Department finds that the disturbance:

1. Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

2. Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in 335-14-5-.07(9).

(9) Post-closure plan; amendment of plan.

(a) Written plan. The owner or operator of a hazardous waste disposal unit must have a written post-closure plan. In addition, certain surface impoundments, waste piles, and drip pads from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by 335-14-5-.11(9)(c)1.(ii), 335-14-5-.12(9)(c)1.(ii), and 335-14-5-.23(6)(c)1.(ii) to have contingent post-closure plans. Owners or operators of surface impoundments, waste piles, and drip pads not otherwise required to prepare contingent post-closure plans under 335-14-5-.11(9)(c)1.(ii), 335-14-5-.12(9)(c)1.(ii), and 335-14-5-.23(6)(c)1.(ii) and other hazardous waste management units and CAMUs which cannot demonstrate closure by removal must submit a post-closure plan to the Director within 90 days from the date that the owner or operator or Director determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of 335-14-5-.07(8) through (11). The plan must be submitted with the permit application, in accordance with 335-14-8-.02(5)(b)13. and approved by the Director as part of the permit issuance procedures under 335-14-8. In accordance with 335-14-8-.03(3), the approved post-closure plan will become a condition of any AHWMMA permit issued.

(b) For each hazardous waste management unit subject to the requirements of 335-14-5-.07, the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

1. A description of the planned monitoring activities and frequencies at which they will be performed to comply with 335-14-5-.06, .09, .10, .11, .12, .13, .14, .19, .23, .24, and .30 during the post-closure care period; and

2. A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of 335-14-5-.06, .09, .10, .11, .12, .13, .14, .19, .23, .24, and .30; and

(ii) The function of the monitoring equipment in accordance with the requirements of 335-14-5-.06, .09, .10, .11, .12, .13, .14, .19, .23, .24, and .30; and

3. The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

4. For facilities where the Department has applied alternative requirements at a regulated unit under 335-14-5-.06(1)(f), 335-14-5-.07(1)(c), and/or 335-14-.08(1)(e), either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

(c) Until final closure of the facility, a copy of the approved post-closure plan must be furnished to the Department upon request, including request by mail. After final closure has been certified, the person or office specified in 335-14-5-.07(9)(b)3. must keep the approved post-closure plan during the remainder of the post-closure period.

(d) Amendment of plan. The owner or operator must submit a written request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements of 335-14-8. The written request must include a copy of the amended post-closure plan for review or approval by the Department.

1. The owner or operator may submit a written request to the Department for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.

2. The owner or operator must submit a written request for a permit modification to authorize a change in the approved post-closure plan whenever:

(i) Changes in operating plans or facility design affect the approved post-closure plan, or

(ii) There is a change in the expected year of final closure, if applicable, or

(iii) Events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan, or

(iv) The owner or operator requests the Department to apply alternative requirements to a regulated unit under 335-14-5-.06(1)(f), 335-14-5-.07(1)(c), and/or 335-14-5-.08(1)(e).

3. The owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment, waste pile or drip pad that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure plan under 335-14-5-.11(9)(c)l.(ii), 335-14-5-.12(9)(c)1.(ii), and 335-14-5-.23(6)(c)1.(ii) must submit a post-closure plan to the Department no later than 90 days after the date that the owner or operator or Department determines that the hazardous waste

management unit must be closed as a landfill, subject to the requirements of 335-14-5-.14(11). The Department will approve, disapprove, or modify this plan in accordance with the procedures in 335-14-8. In accordance with 335-14-8-.03(3), the approved post-closure plan will become a permit condition.

4. The Department may request modifications to the plan under the conditions described in 335-14-5-.07(9)(d)2. The owner or operator must submit the modified plan no later than 60 days after the Department's request, or no later than 90 days if the unit is a surface impoundment, waste pile, or drip pad not previously required to prepare a contingent post-closure plan. Any modifications requested by the Department will be approved, disapproved, or modified in accordance with the procedures in 335-14-8.

(10) Post-closure notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:

1. Record, in accordance with State of Alabama law, a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under 335-14-5-.07; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by 335-14-5-.07(7) and 335-14-5-.07(10)(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Department; and

2. Submit a certification, signed by the owner or operator, that he has recorded the notation specified in 335-14-5-.07(10)(b)1., including a copy of the document in which the notation has been placed, to the Department.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated

soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in 335-14-8. The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of 335-14-5-.07(8)(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of Division 335-14. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Director approve either:

1. The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

2. The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

(11) Certification of completion of post-closure care. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Department, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the professional engineer's certification must be furnished to the Department upon request until the Director releases the owner or operator from the financial assurance requirements for post-closure care under 335-14-5-.08(6)(i).

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335-14-5-.08 Financial Requirements.

(1) Applicability.

(a) The requirements of 335-14-5-.08(3), (4), and (8) through (12) apply to owners and operators of all hazardous waste facilities and CAMUs, except as provided otherwise in 335-14-5-.08(1) or 335-14-5-.01(1).

(b) The requirements of 335-14-5-.08(5), (6), and (7) apply only to owners and operators of:

1. Disposal facilities;

2. Piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these paragraphs are made applicable to such facilities in 335-14-5-.11(9) and 335-14-5-.12(9);

3. Tank systems that are required under 335-14-5-.10(8) to meet the requirements for landfills;

4. Containment buildings that are required under 335-14-5-.30(3) to meet the requirements for landfills;

5. Corrective action management units in which wastes remain after closure; and

6. Other hazardous waste management units which are unable to demonstrate closure by removal.

(c) The requirements of 335-14-5-.08(10) and (11) apply to owners and operators of all facilities required to perform corrective actions pursuant to 335-14-5-.06(11) or (12), section 3008(h) or RCRA, as applicable.

(d) Except for the requirements to provide and update cost estimates, as described in 335-14-5-.08(3), 335-14-5-.08(5), and 335-14-5-.08(10), the State of Alabama and the Federal government are exempt from the requirements of 335-14-5-.08.

(e) The Department may replace all or part of the requirements of 335-14-5-.08 applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document [as defined in 335-14-8-.01(1)(c)7.], where the Department:

1. Prescribes alternative requirements for the regulated unit under 335-14-5-.06(1)(f) and/or 335-14-5-.07(1)(c); and

2. Determines that it is not necessary to apply the requirements of 335-14-5-.08 because the alternative financial assurance requirements will protect human health and the environment.

(2) **[Reserved].**

(3) Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate, in a format specified by the Department, in current dollars, of the cost of closing the facility in accordance with the requirements in 335-14-5-.07(2) through (6) and applicable closure requirements in 335-14-5-.09(9), 335-14-5-.10(8), 335-14-5-.11(9),

335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), 335-14-5-.15(12), 335-14-5-.19(1) through (3), 335-14-5-.23(6), 335-14-5-.24(2) through (4), and 335-14-5-.30(3).

1. The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan; and

2. The closure-cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02.) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

3. The closure-cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

4. The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under 335-14-5-.07(4)(d), that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure-cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-5-.08(4). For owners and operators using the financial test or corporate guarantee, the closure-cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Department as specified in 335-14-5-.08(4)(f)5. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in 335-14-5-.08(3)(b)1. and 2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the closure-cost estimate no later than 30 days after the Department has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure-cost estimate must be adjusted for inflation as specified in 335-14-5-.08(3).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest closure cost estimate prepared in accordance with 335-14-5-.08(3)(a) and (3)(c) and, when this estimate has been adjusted in accordance with 335-14-5-.08(3)(b), the latest adjusted closure cost estimate.

(4) Financial assurance for closure. An owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in 335-14-5-.08(4)(a) through (f).

(a) Closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by establishing a closure trust fund which conforms to the requirements of 335-14-5-.08(4)(a) and submitting an originally signed duplicate of the trust agreement to the Department. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-5-.08(12)(a)1. and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see 335-14-5-.08(12)(a)2.). Schedule A of the trust agreement must be updated and an originally signed duplicate must be submitted to the Department, within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

3. Payments into the trust fund must be made annually by the owner or operator over the term of the initial Hazardous Waste Facility Permit, over the remaining operating life of the facility as estimated in the closure plan, or eight years, whichever period is shorter. The payments into the closure trust fund must be made as follows:

(i) For a new facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Department before the initial receipt of hazardous waste. Subsequent payments must be made no later than 30 days after the anniversary date of the first payment. Payments must be made according to the following schedule:

(I) If the initial permit is for a term of one year, 100% of the current closure cost estimate must be paid initially;

(II) If the initial permit is for a term of two years, 50% of the current closure cost estimate must be paid each of the two years;

(III) If the initial permit is for a term of three years, 34% of the current closure cost estimate must be paid initially and 33% of the current closure cost estimate must be paid each of the two subsequent years;

(IV) If the initial permit is for a term of four years, 25% of the current closure cost estimate must be paid each of the four years;

(V) If the initial permit is for a term of five years, 20% of the current closure cost estimate must be paid each of the five years;

(VI) If the initial permit is for a term of six years, 20% of the current closure cost estimate must be paid each of the first four years and 10% of the current closure cost estimate must be paid each of the two subsequent years;

(VII) If the initial permit is for a term of seven years, 20% of the current closure cost estimate must be paid each of the first three years and 10% of the current closure cost estimate must be paid each of the four subsequent years; and

(VIII) If the initial permit is for a term of eight years or longer, 20% of the current closure cost estimate must be paid each of the first two years and 10% of the current closure cost estimate must be paid each of the six subsequent years;

(ii) Following the initial payment, all subsequent annual payments must reconcile any difference between the actual value of the trust fund and the required value of the trust fund. The required value of the trust fund accounts for adjustments to the closure-cost estimate made in accordance with 335-14-5-.08(3), and may be calculated by determining the value of the trust fund if the current payment and all previous payments were made using the current closure-cost estimate.

(iii) If an owner or operator of an existing facility establishes a trust fund as specified in 335-14-6-.08(4)(a), and the value of the trust fund is less than the current closure cost estimate when a permit is issued for the facility, the amount of the current closure cost estimate still to be paid into the trust fund must be paid according to the schedule set out in 335-14-5-.08(4)(a)3.(i).

4. The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in 335-14-5-.08(4)(a)3.

5. If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in 335-14-5-.08(4) or 335-14-6-.08(4), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of 335-14-5-.08(4)(a) and 335-14-6-.08(4)(a), as applicable.

6. After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the

trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in 335-14-5-.08(4) to cover the difference.

7. If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current closure cost estimate.

8. If an owner or operator substitutes other financial assurance as specified in 335-14-5-.08(4) for all or part of the trust fund, he may submit a written request to the Department for release of the amount in excess of the current closure cost estimate covered by the trust fund.

9. Within 60 days after receiving a request from the owner or operator for release of funds as specified in 335-14-5-.08(4)(a)7. or (a)8., the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

10. After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with 335-14-5-.08(4)(i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Department does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

11. The Department will agree to termination of the trust when:

(i) The owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

(b) Surety bond guaranteeing payment into a closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by obtaining a surety bond which conforms to the requirements of 335-14-5-.08(4)(b) and submitting the bond to the Department. An owner or operator of a new facility must submit the bond to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(b).

3. The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-5-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of 335-14-5-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-5-.08(4)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in 335-14-5-.08(4) and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in 335-14-5-.08(4)(g).

7. Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(4) to cover the increase. Whenever the current closure cost estimate decreases the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

(c) Surety bond guaranteeing performance of closure.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by obtaining a surety bond which conforms to the requirements of 335-14-5-.08(4)(c) and submitting the bond to the Department. An owner or operator of a new facility must submit the bond to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(c).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-5-.08(4) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the

Department. This standby trust must meet the requirements specified in 335-14-5-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-5-.08, the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-5-.08(4)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

(ii) Provide alternate financial assurance as specified in 335-14-5-.08, and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to Sections 22-30-19 and 22-22A-7, Code of Alabama 1975, that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure as guaranteed by the bond or will deposit the amount of the penal sum into the standby trust fund.

6. The penal sum of the bond must be in an amount at least equal to the current closure cost estimate.

7. Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(4). Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

10. The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

(d) Closure letter of credit.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-5-.08(4)(d) and submitting the letter to the Department. An owner or operator of a new facility must submit the letter of credit to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. The wording of the letter of credit must be identical to the wording specified in 335-14-5-.08(12)(d).

3. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-5-.08(4) must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in 335-14-5-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-5-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-5-.08(4)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in 335-14-5-.08(4)(g).

7. Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(4) to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Department.

8. Following a final administrative determination pursuant to Sections 22-30-19 and 22-22A-7, Code of Alabama 1975, that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Department may draw on the letter of credit.

9. If the owner or operator does not establish alternate financial assurance as specified in 335-14-5-.08(4) and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department will draw on the letter of credit. The Department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in 335-14-5-.08(4) and obtain written approval of such assurance from the Department.

10. The Department will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

(e) Closure insurance.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by obtaining closure insurance which conforms to the requirements of 335-14-5-.08(4)(e) and submitting an originally signed certificate of such insurance to the Department. An owner or operator of a new facility must submit the certificate of insurance to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama, and must not be captive insurance as defined in 335-14-51-.02 unless the requirements of 335-14-5-.08(4)(e)1.(ii) are met.

(i) The use of insurance to demonstrate financial assurance for closure and post-closure care pertains exclusively to those insurance policies underwritten by commercial property and casualty insurers (primary or excess and surplus lines), through which, in the insurance contract, the financial burden for closure and post-closure care is transferred to the third-party insurer. Except as provided in 335-14-5-.08(4)(e)1.(ii), the third-party insurer must assume financial responsibility for this accepted risk, using its own pool of resources that is independent, separate, and unrelated to that of the insured (owner or operator). The use of insurance policies underwritten by captive insurers therefore is prohibited unless the owner/operator can demonstrate compliance with condition 335-14-5-.08(4)(e)1.(ii) for each year captive insurance is used.

(ii) Captive insurance may be used for closure insurance only when the facility provides annual documentation to the Department that the owner or operator is in compliance with the requirements of 335-14-5-.08(4)(f).

2. The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(e).

3. The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in 335-14-5-.08(4)(g). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4. The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

5. After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Department will instruct the insurer to make reimbursements in such amounts as the Department specifies, in writing, if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with 335-14-5-.08(4)(i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Department does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

6. The owner or operator must maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in 335-14-5-.08(4)10. Failure to pay the premium, without substitution of alternate financial assurance as specified in 335-14-5-.08(4), will constitute a significant violation of these regulations, warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7. Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8. The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Department deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Department or a court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

9. Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(4) to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Department.

10. The Department will give written consent to the owner or operator that it may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

(f) Financial test and corporate guarantee for closure.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by demonstrating that he passes a financial test as specified in 335-14-5-.08(4). To pass this test the owner or operator must meet the criteria of either 335-14-5-.08(4)(f)1.(i) or (f)1.(ii):

(i) The owner or operator must have:

(I) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

(II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates.

2. The phrase “current closure and post-closure cost estimates” as used in 335-14-5-.08(4)(f)1. refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (335-14-5-.08(12)).

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(f);

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. An owner or operator of a new facility must submit the items specified in 335-14-5-.08(4)(f)3. to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

5. After the initial submission of items specified in 335-14-5-.08(4)(f)3., the owner or operator must send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-5-.08(4)(f)3.

6. If the owner or operator no longer meets the requirements of 335-14-5-.08(4)(f)1., he must send notice to the Department of intent to establish alternate financial assurance as specified in 335-14-5-.08(4). The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

7. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-5-.08(4)(f)1., require reports of financial condition at any time from the owner or operator in addition to those specified in 335-14-5-.08(4)(f)3. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of 335-14-5-.08(4)(f)1., the owner or operator must provide alternate financial assurance as specified in 335-14-5-.08(4) within 30 days after notification of such a finding.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see 335-14-5-.08(4)(f)3.(ii)). An adverse opinion or a disclaimer of opinion will be caused for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in 335-14-5-.08(4) within 30 days after notification of the disallowance.

9. The owner or operator is no longer required to submit the items specified in 335-14-5-.08(4)(f)3. when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(4) in accordance with 335-14-5-.08(4)(i).

10. An owner or operator may meet the requirements of 335-14-5-.08(4) by obtaining a written guarantee, hereinafter referred to as “corporate guarantee”. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-5-.08(4)(f)1. through 8. and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in 335-14-5-.08(12)(h). The certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-5-.08(4)(f)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in 335-14-5-.08(4)(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in 335-14-5-.08(4) and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-5-.08(4) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in 335-14-5-.08(4)(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for closure of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-5-.08(4) to meet the requirements of 335-14-5-.08(4) for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA or Alabama Identification Number, name, address, and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of 335-14-5-.08(4). Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Department will notify the owner or operator in writing that he is no longer required by 335-14-5-.08(4)

to maintain financial assurance for final closure of the facility, unless the Department has reason to believe that final closure has not been in accordance with the approved closure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

(5) Cost estimate for post-closure care.

(a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, landfill unit, other hazardous waste management unit or CAMU which cannot demonstrate closure by removal, or surface impoundment or waste pile required under 335-14-5-.11(9) and 335-14-5-.12(9) to prepare a contingent closure and post-closure plan must have a detailed written estimate in a format specified by the Department, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure requirements in 335-14-5-.07(8) through (11), 335-14-5-.11(9), 335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), and 335-14-5-.24(4).

1. The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02.)

2. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under 335-14-5-.07(8). Unless expressly extended or shortened by the Department in writing, the post-closure care period shall be assumed to be thirty years for the purposes of calculating the post-closure cost estimate.

(b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-5-.08(6). For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Department as specified in 335-14-5-.08(6)(f)5. The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in 335-14-5-.08(5)(b)1. and 2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the post-closure cost estimate within 30 days after the Department has approved the request to modify the post-closure plan, if the change in the post- closure plan increases the cost of the post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in 335-14-5-.08(5)(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility and throughout the post-closure care period: the latest post-closure cost estimate prepared in accordance with 335-14-5-.08(5)(a) and (5)(c) and, when this estimate has been adjusted in accordance with 335-14-5-.08(5)(b), the latest adjusted post-closure cost estimate.

(6) Financial assurance for post-closure. The owner or operator of a hazardous waste management unit subject to the requirements of 335-14-5-.08(5) must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the requirement, whichever is later. He must choose from the following options:

(a) Post-closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) by establishing a post-closure trust fund which conforms to the requirements of 335-14-5-.08(6)(a) and submitting an originally signed duplicate of the trust agreement to the Department. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-5-.08(12)(a)1. and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see 335-14-5-.08(12)(a)2.). Schedule A of the trust agreement must be updated, and an originally signed duplicate must be submitted to the Department, within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

3. The owner or operator of an operating facility must make annual payments into the fund over the term of the initial Hazardous Waste Facility Permit, over the remaining operating life of the facility as estimated in the closure plan, or eight years, whichever period is shorter. The owner or operator of a post-closure or SWMU corrective action facility must make payments into the fund over a term of eight years beginning on the effective date of the initial post-closure permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.). The payments into the post-closure trust fund must be made as follows:

(i) For a new or existing operating facility, the first payment must be made before the initial receipt of hazardous waste for treatment, storage or disposal. A

receipt from the trustee for this payment must be submitted by the owner or operator to the Department before the initial receipt of hazardous waste. For a post-closure facility or SWMU CA facility, the first payment must be made no later than 60 days following the effective date of the initial post-closure permit. A receipt from the trustee for this payment must be submitted by the owner or operator to the Department no later than 30 days following the payment date. Subsequent payments must be made no later than 30 days after the anniversary date of the first payment. Payments must be made according to the following schedule:

(I) If the initial permit is for a term of one year, 100% of the current post-closure cost estimate must be paid initially;

(II) If the initial permit is for a term of two years, 50% of the current post-closure cost estimate must be paid each of the two years;

(III) If the initial permit is for a term of three years, 34% of the current post-closure cost estimate must be paid initially and 33% of the current post-closure cost estimate must be paid each of the two subsequent years.

(IV) If the initial permit is for a term of four years, 25% of the current post-closure cost estimate must be paid each of the four years;

(V) If the initial permit is for a term of five years, 20% of the current post-closure cost estimate must be paid each of the five years;

(VI) If the initial permit is for a term of six years, 20% of the current post-closure cost estimate must be paid each of the first four years and 10% of the current cost estimate must be paid each of the two subsequent years;

(VII) If the initial permit is for a term of seven years, 20% of the current post-closure cost estimate must be paid each of the first three years and 10% of the current post-closure cost estimate must be paid each of the four subsequent years; and

(VIII) If the initial permit is for a term of eight years or longer, 20% of the current post-closure cost estimate must be paid each of the first two years and 10% of the current post-closure cost estimate must be paid each of the six subsequent years;

(ii) Following the initial payment, all subsequent annual payments must reconcile any difference between the actual value of the trust fund and the required value of the trust fund. The required value of the trust fund accounts for adjustments to the post-closure cost estimate made in accordance with 335-14-5-.08(5), and may be calculated by determining the value of the trust fund if the current payment and all previous payments were made using the current post-closure cost estimate.

(iii) If an owner or operator of an existing facility establishes a trust fund as specified in 335-14-6-.08(6)(a), and the value of the trust fund is less than the current post-closure cost estimate when a permit is issued for the facility, the amount

of the current post-closure cost estimate still to be paid into the trust fund must be paid according to the schedule set out in 335-14-5-.08(6)3.(i).

4. The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in 335-14-5-.08(6)(a)3.

5. If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in 335-14-5-.08(6) or in 335-14-6-.08(6), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of 335-14-5-.08(6)(a) and 335-14-6-.08(6)(a), as applicable.

6. After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in 335-14-5-.08(6) to cover the difference.

7. During the operating life of the facility and throughout the post-closure care period, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current post-closure cost estimate.

8. If an owner or operator substitutes other financial assurance as specified in 335-14-5-.08(6) for all or part of the trust fund, the owner or operator may submit a written request to the Department for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

9. Within 60 days after receiving a request from the owner or operator for release of funds as specified in 335-14-5-.08(6)(a)7. or (a)8., the Department will approve or disapprove the request for release. If the Department approves the owner or operator’s request for release, the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

10. Following the completion of the pay-in-period, the Department may approve a release of funds if the owner or operator demonstrates to the Department that the value of the trust fund exceeds the remaining cost of post-closure care.

11. Following the completion of the pay-in-period, an owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the

Department. Within 60 days after receiving bills for post-closure care activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Department does not instruct the trustee to make such reimbursements, it will provide the owner or operator with a detailed written statement of reasons.

12. The Department will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6) and approve by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i).

(b) Surety bond guaranteeing payment into a post-closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) by obtaining a surety bond which conforms to the requirements of 335-14-5-.08(6)(b) and submitting the bond to the Department. An owner or operator of a new facility must submit the bond to the Department at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(b).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-5-.08(6) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-5-.08(6)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of 335-14-5-.08(6), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-5-.08(6)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current post-closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate except as provided in 335-14-5-.08(6)(g).

7. Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(6) to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i).

(c) Surety bond guaranteeing performance of post-closure care and/or corrective action.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) and 335-14-5-.08(11) by obtaining a surety bond which conforms to the requirements of 335-14-5-.08(6)(c) and submitting the bond to the Department. An owner or operator of a new or existing operating facility must submit the bond to the Department at least 60 days before the date on which hazardous waste is first received for disposal. The owner or operator of a post-closure or SWMU corrective action facility must submit the bond to the Department at leas 60 days following the issuance to the initial post-closure permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.). The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(c).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-5-.08(6) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-5-.08(6)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-5-.08(6), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-5-.08(6)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current post-closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Perform post-closure care and/or corrective action in accordance with the post-closure plan, corrective action plan, and other requirements of the permit for the facility; or

(ii) Provide alternate financial assurance as specified in 335-14-5-.08(6), and obtain the Department's written approval of the assurance

provided, within 90 days of receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to Sections 22-30-19 and 22-22A-7, Code of Alabama 1975, that the owner or operator has failed to perform post-closure care and/or corrective action in accordance with the approved post-closure plan, corrective action plan, and other permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.) requirements under the terms of the bond the surety will perform post-closure care and/or corrective action in accordance with the post-closure plan, corrective action plan, and other permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.) requirements or will deposit the amount of the penal sum into the standby trust fund.

6. The penal sum of the bond must be in an amount at least equal to the current post-closure and/or corrective action cost estimate.

7. Whenever the current post-closure and/or corrective action cost estimate increases to an amount greater than the penal sum during the operating life of the facility or the post-closure care period, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure and/or corrective action cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(6). Whenever the current post-closure and/or corrective action cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure and/or corrective action cost estimate following written approval by the Department.

8. During the period of post-closure care and/or corrective action, the Department may approve a decrease in the penal sum if the owner or operator demonstrates to the Department that the amount exceeds the remaining cost of post-closure care and/or corrective action.

9. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

10. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i) or 335-14-5-.08(11).

11. The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i) or 335-14-5-.08(11)(f).

(d) Post-closure and/or corrective action letter of credit.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) and 335-14-5-.08(11) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-5-.08(6)(d) and submitting the letter to the Department. An owner or operator of a new facility must submit the letter of credit to the Department at least 60 days before the date on which hazardous waste is first received for disposal. The owner or operator of a post-closure or SWMU corrective action facility must submit the letter of credit to the Department at least 60 days following the issuance to the initial post-closure permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.). The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. The wording of the letter of credit must be identical to the wording specified in 335-14-5-.08(12)(d).

3. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-5-.08(6) must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in 335-14-5-.08(6)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-5-.08(6), the following are not required by these regulations:

(I) Payments into the trust fund as required in 335-14-5-.08(6)(a);

(II) Updating of Schedule A of the trust agreement (see 335-14-5-.08(12)(a)) to show current post-closure and/or corrective action cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name,

and address of the facility, and the amount of funds assured for post-closure care and/or corrective action of the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current post-closure and/or corrective action cost estimate, except as provided in 335-14-5-.08(6)(g).

7. Whenever the current post-closure and/or corrective action cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility or the post-closure care period, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure and/or corrective action cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(6) or 335-14-5-.08(11) to cover the increase. Whenever the current post-closure and/or corrective action cost estimate decreases during the operating life of the facility or the post-closure care period, the amount of the credit may be reduced to the amount of the current post-closure and/or corrective action cost estimate following written approval by the Department.

8. During the period of post-closure care and/or corrective action, the Department may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Department that the amount exceeds the remaining cost of post-closure care and/or corrective action.

9. Following a final administrative determination pursuant to Sections 22-30-19 and 22-22A-7, Code of Alabama 1975, that the owner or operator has failed to perform post-closure care and/or corrective action in accordance with the approved post-closure plan and other permit or correction action order requirements, the Department may draw on the letter of credit.

10. If the owner or operator does not establish alternate financial assurance as specified in 335-14-5-.08(6) and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department will draw on the letter of credit. The Department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in 335-14-5-.08(6) and obtain written approval of such assurance from the Department.

11. The Department will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i) or 335-14-5-.08(11)(f).

(e) Post-closure insurance.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) by obtaining post-closure insurance which conforms to the requirements of 335-14-5-.08(6)(e) and submitting an originally signed certificate of such insurance to the Department. An owner or operator of a new facility must submit the certificate of insurance to the Department at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. The insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer in the State of Alabama, and must not be captive insurance as defined in 335-14-1-.02 unless the requirements of 335-14-5-.08(6)(e)1.(ii) are met.

(i) The use of insurance to demonstrate financial assurance for closure and post-closure care pertains exclusively to those insurance policies underwritten by commercial property and casualty insurers (primary or excess and surplus lines), through which, in the insurance contract, the financial burden for closure and post-closure care is transferred to the third-party insurer. Except as provided in 335-14-5-.08(6)(e)1.(ii), the third-party insurer must assume financial responsibility for this accepted risk, using its own pool of resources that is independent, separate, and unrelated to that of the insured (owner or operator). The use of insurance policies underwritten by captive insurers therefore is prohibited unless the owner/operator can demonstrate compliance with condition 335-14-5-.08(6)(e)1.(ii) for each year captive insurance is used.

(ii) Captive insurance may be used for post-closure insurance only when the facility provides annual documentation to the Department that the owner or operator is in compliance with the requirements of 335-14-5-.08(6)(f).

2. The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(e).

3. The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in 335-14-5-.08(6)(g). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4. The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

5. An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Department. Within 60 days after receiving bills for post-closure care activities, the Department will instruct the insurer to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Department does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

6. The owner or operator must maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in 335-14-5-.08(6)(e)11. Failure to pay the premium, without substitution of alternate financial assurance as specified in 335-14-5-.08(6), will constitute a significant violation of these regulations, warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7. Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8. The policy must provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Department deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Department or a court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

9. Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-5-.08(6) to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Department.

10. Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

11. The Department will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i).

(f) Financial test and corporate guarantee for post-closure care.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(6) by demonstrating that he passes a financial test as specified in 335-14-5-.08(6)(f). To pass this test the owner or operator must meet the criteria of either 335-14-5-.08(6)(f)1.(i) or (f)1.(ii):

(i) The owner or operator must have:

(I) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

2. The phrase “current closure and post-closure cost estimates” as used in 335-14-5-.08(6)(f)1. refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer (335-14-5-.08(12)(f)).

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. An owner or operator of a new facility must submit the items specified in 335-14-5-.08(6)(f)3. at least 60 days before the date on which hazardous waste is first received for disposal.

5. After the initial submission of items specified in 335-14-5-.08(6)(f)3., the owner or operator must send updated information to the

Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-5-.08(6)(f)3.

6. If the owner or operator no longer meets the requirements of 335-14-5-.08(6)(f)1., he must send notice to the Department of intent to establish alternate financial assurance as specified in 335-14-5-.08(6). The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

7. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-5-.08(6)(f)1., require reports of financial condition at any time from the owner or operator in addition to those specified in 335-14-5-.08(6)(f)3. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of 335-14-5-.08(6)(f)1., the owner or operator must provide alternate financial assurance as specified in 335-14-5-.08(6) within 30 days after notification of such a finding.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements [see 335-14-5-.08(6)(f)3.(ii)]. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in 335-14-5-.08(6) within 30 days after notification of the disallowance.

9. During the period of post-closure care, the Department may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Department that the amount of the cost estimate exceeds the remaining cost of post-closure care.

10. The owner or operator is no longer required to submit the items specified in 335-14-5-.08(6)(f)3. of when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(6); or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(6) in accordance with 335-14-5-.08(6)(i).

11. An owner or operator may meet the requirements of 335-14-5-.08(6) by obtaining a written guarantee, hereinafter referred to as “corporate guarantee”. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-5-.08(6)(f)1. through 9. and must comply with the terms of the guarantee.

The wording of the guarantee must be identical to the wording specified in 335-14-5-.08(12)(h). A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-5-.08(6)(f)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in 335-14-5-.08(6)(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in 335-14-5-.08(6) and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-5-.08(6) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms must be as specified in 335-14-5-.08(6)(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for post-closure care of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-5-.08(6) to meet the requirements of 335-14-5-.08(6) for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA or Alabama Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be

available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of 335-14-5-.08(6). Within 60 days after receiving certifications from the owner or operator and a qualified professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Department will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure of that unit, unless the Department has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

(7) Use of a mechanism for multiple financial responsibilities. An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both 335-14-5-.08(4) and (6). For corrective action at one or more facilities, an owner or operator may satisfy the requirements for financial assurance by using a trust fund, surety bond, or letter of credit that meets the specifications of the mechanism in 335-14-5-.08(11). The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure, post-closure care, and corrective action.

(8) Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in 335-14-5-.08(8)(a)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-5-.08(8)(a).

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidence by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in 335-14-5-.08(12)(i). The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the

Department. If requested by the Department, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in the State of Alabama.

2. An owner or operator may meet the requirements of 335-14-5-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-5-.08(8)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-5-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a surety bond for liability coverage as specified in 335-14-5-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-5-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by 335-14-5-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under 335-14-5-.08(8)(a), the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A Claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-5-.08(8)(a)1. through (a)6.; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the

owner or operator and third-party claimant for liability coverage under 335-14-5-.08(8)(a)1. through (a)6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-5-.08(8)(a)1. through (a)6.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of 335-14-5-.08(8) may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in 335-14-5-.08(8)(b)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-5-.08(8)(b).

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in 335-14-5-.08(12)(i). The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Department. If requested by the Department, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy must be issued by an insurer which is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in the State of Alabama.

2. An owner or operator may meet the requirements of 335-14-5-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-5-.08(8)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-5-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a surety bond for liability coverage as specified in 335-14-5-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-5-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amount required by 335-14-5-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under 335-14-5-.08(8)(b), the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A Claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-5-.08(8)(b)1. through (b)6.; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under 335-14-5-.08(8)(b)1. through (b)6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-5-.08(8)(b)1. through (b)6.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Department that the levels of financial responsibility required by 335-14-5-.08(8)(a) or (b) are not consistent with the degree and duration of risk

associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Department. The request for a variance must be submitted to the Department as part of the application under 335-14-8-.02(5) for a facility that does not have a permit, or pursuant to the procedures for permit modification under 335-14-8-.08(3) for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Department to determine a level of financial responsibility other than that required by 335-14-5-.08(8)(a) or (b). Any request for a variance for a permitted facility will be treated as a request for a permit modification under 335-14-8-.04(2)(a)5. and 335-14-8-.08(3).

(d) Adjustments by the Department. If the Department determines that the levels of financial responsibility required by 335-14-5-.08(8)(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Department may adjust the level of financial responsibility required under 335-14-5-.08(8)(a) or (b) as may be necessary to protect human health and the environment. This adjusted level will be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Department determines that there is a significant risk to human health and the environment from non-sudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with 335-14-5-.08(8)(b). An owner or operator must furnish to the Department within a reasonable time, any information which the Department requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under 335-14-8-.04(2)(a)5. and 335-14-8-.08(3).

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified professional engineer that final closure has been completed in accordance with the approved closure plan, the Department will notify the owner or operator in writing that he is no longer required by 335-14-5-.08(8) to maintain liability coverage for that facility, unless the Department has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(8) by demonstrating that he passes a financial test as specified in 335-14-5-.08(8)(f). To pass this test the owner or operator must meet the criteria of 335-14-5-.08(8)(f)1.(i) or (ii):

(i) The owner or operator must have:

(I) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(II) Tangible net worth of at least $10 million; and

(III) Assets in the United States amounting to either:

I. at least 90 percent of his total assets; or

II. at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth at least $10 million; and

(III) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(IV) Assets in the United States amounting to either:

I. at least 90 percent of his total assets; or

II. at least six times the amount of liability coverage to be demonstrated by this test.

2. The phrase “amount of liability coverage” as used in 335-14-5-.08(8)(f)1. refers to the annual aggregate amounts for which coverage is required under 335-14-5-.08(8)(a) and (b).

3. To demonstrate that he meets this test, the owner or operator must submit the following three items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by 335-14-5-.08(4)(f) and 335-14-5-.08(6)(f), and liability coverage, he must submit the letter specified in 335-14-5-.08(12)(g) to cover both forms of financial responsibility; a separate letter as specified in 335-14-5-.08(12)(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specified as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. An owner or operator of a new facility must submit the items specified in 335-14-5-.08(8)(f)3. to the Department at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

5. After the initial submission of items specified in 335-14-5-.08(8)(f)3., the owner or operator must send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-5-.08(8)(f)3.

6. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-5-.08(8)(f)1., require from the owner or operator at any time current updates of reports of financial condition specified in 335-14-5-.08(8)(f)3.

7. If the owner or operator no longer meets the requirements of 335-14-5-.08(8)(f)1., he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in 335-14-5-.08(8). Evidence of liability coverage must be submitted to the Department within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see 335-14-5-.08(8)(f)3.(ii)). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

1. Subject to 335-14-5-.08(8)(g)2., an owner or operator may meet the requirements of 335-14-5-.08(8) by obtaining a written guarantee, hereinafter referred to as “guarantee”. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-5-.08(8)(f)1. through (f)7. The wording of the guarantee must be identical to the wording specified in 335-14-5-.08(12)(h)2. A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-5-.08(8)(f)3. One of these items must be the letter from the

guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) **[Reserved].**

2.(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of 335-14-5-.08(8) only if the Attorneys General or Insurance Commissioners of

(I) the State in which the guarantor is incorporated, and

(II) each State in which a facility covered by the guarantee is located have submitted a written statement to the Department that a guarantee executed as described in 335-14-5-.08(8) and 335-14-5-.08(12)(h)2. is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of 335-14-5-.08(8) only if

(I) the non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business, and

(II) the Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business has submitted a written statement to the Department that a guarantee executed as described in 335-14-5-.08(8), and 335-14-5-.08(12)(h)2. is a legally valid and enforceable obligation in that State.

(h) Letter of credit for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(8) by obtaining an irrevocable standby letter of credit that conforms to the requirements of 335-14-5-.08(8)(h) and submitting a copy of the letter of credit to the Department.

2. The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

3. The wording of the letter of credit must be identical to the wording specified in 335-14-5-.08(12)(k).

4. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-5-.08(8) may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

5. The wording of the standby trust fund must be identical to the wording specified in 335-14-5-.08(12)(n).

(i) Surety bond for liability coverage

1. An owner or operator may satisfy the requirements of 335-14-5-.08(8) by obtaining a surety bond that conforms to the requirements of 335-14-5-.08(8)(i) and submitting a copy of the bond to the Department.

2. The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

3. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(l).

4. A surety bond may be used to satisfy the requirements of 335-14-5-.08(8) only if the Attorneys General or Insurance Commissioners of

(i) the State in which the surety is incorporated, and

(ii) each State in which a facility covered by the surety bond is located have submitted a written statement to the Department that a surety bond executed as described in 335-14-5-.08(8)(i) and 335-14-5-.08(12)(l) is a legally valid and enforceable obligation in that State.

(j) Trust fund for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-5-.08(8) by establishing a trust fund that conforms to the requirements of 335-14-5-.08(8)(j) and submitting an originally signed duplicate of the trust agreement to the Department.

2. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

3. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of 335-14-5-.08(8). If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in 335-14-5-.08(8) to cover the difference. For purposes of 335-14-5-.08(8)(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by 335-14-5-.08(8), less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

4. The wording of the trust fund must be identical to the wording specified in 335-14-5-.08(12)(m).

(k) **[Reserved].**

(9) Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in 335-14-5-.08(4)(f) and 335-14-5-.08(6)(f) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (335-14-5-.08(12)(h)).

(b) An owner or operator who fulfills the requirements of 335-14-5-.08(4), (6), and (8) by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee or of the institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

(10) Cost estimate for corrective action.

(a) The owner or operator of a facility at which corrective action is required pursuant to 335-14-5-.06(11 or (12) must have a detailed written estimate in a format specified by the Department, in current dollars, of the annual cost of corrective action.

1. The corrective action cost estimate must be based on the cost to the owner or operator of hiring a third party to conduct all corrective actions required by the facility permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.), the corrective action plan, the corrective action order, and the applicable requirements of 335-14-5-.06(11 and (12). A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02).

2. The corrective action cost estimate is calculated by multiplying the annual corrective action cost estimate by the total number of years in the corrective action period. Estimation of the required corrective action period shall be made on case-by-case basis, shall be based on the corrective action methods specified in the corrective action plan, and shall be certified by an independent registered professional engineer and/or independent licensed professional geologist.

3. The corrective action cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, non-hazardous wastes, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

4. The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes that might have economic value.

(b) During the corrective action period, the owner or operator must adjust the corrective action cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-5-.08(11). The adjustment may be made by recalculating the corrective action cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in 335-14-5-.08(10)(b)1. and 2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the corrective action cost estimate by the inflation factor. The result is the adjusted corrective action cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted corrective action cost estimate by the latest inflation factor.

(c) During the corrective action period, the owner or operator must revise the corrective action cost estimate within 30 days after the Department has approved a request to modify the corrective action plan, if the change in the corrective action plan increases the cost of the corrective action. The revised corrective action cost estimate must be adjusted for inflation as specified in 335-14-5-.08(10)(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility and throughout the post-closure care period: The latest corrective action cost estimate prepared in accordance with 335-14-5-.08(10)(a) and (10)(c) and, when this estimate has been adjusted in

accordance with 335-14-5-.08(10)(b), the latest adjusted corrective action cost estimate.

(11) Financial assurance for corrective action. The owner or operator of a facility at which corrective action is required pursuant to 335-14-5-.06(11) or (12) must establish financial assurance for corrective action in accordance with the approved corrective action plan for the facility 60 days following the specification of the corrective actions in the facility permit or enforceable document (as defined in 335-14-8-.01(1)(c)7.). He must choose from the following options:

(a) Corrective action trust fund.

1. An owner or operator may specify the requirements of 335-14-5-.08(11) by establishing a corrective action trust fund which conforms to the requirements of 335-14-5-.08(11)(a) and submitting an originally signed duplicate of the trust agreement to the Department. An owner or operator of a new facility must submit the originally signed duplicate of the trust agreement to the Department no later than 30 days following establishment of the trust fund. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-5-.08(12)(a)1. and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see 335-14-5-.08(12)(a)2.). Schedule A of the trust agreement must be updated, and an originally signed duplicate must be submitted to the Department, within 60 days after a change in the amount of the current corrective action cost estimate covered by the agreement.

3. Payments into the fund must be made annually by the owner or operator over the pay-in-period, which is the term equal to one-half of the estimated corrective action period. The first payment must be made at the time the trust fund is established. A receipt from the trustee for this payment must be submitted by the owner or operator of the Department no later than 30 days following the payment date. Subsequent payments must be made no later than 30 days after the anniversary date of the first payment. The amount of each payment shall be determined by the following formula:

$$\text{Payment amount} = \frac{CE - CV}{y}$$

where CE is the most recent corrective action cost estimate in accordance with 335-14-5-.08(10), at the time of the payment; CV is the current value of the trust fund, at the time of the payment; and Y is the number of remaining years in the pay-in-period, at the time of the payment.

4. The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current corrective action cost estimate at the time the fund is established. However he must maintain the value of the fund at

no less than the value that the fund would have if annual payments were made as specified in 335-14-5-.08(11)(a)3.

5. If the owner or operator establishes a corrective action trust fund after having used one or more alternate mechanisms specified in 335-14-5-.08(11), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of 335-14-5-.08(11)(a), as applicable.

6. After the pay-in period is completed, whenever the current corrective action cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit and amount into the fund so that its value after this deposit at least equals the amount of the current corrective action cost estimate, or obtain other financial assurance as specified in 335-14-5-.08(11) to cover the difference.

7. During the corrective action period, if the value of the trust fund is greater than the total amount of the current corrective action cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current corrective action cost estimate.

8. If an owner or operator substitutes other financial assurance as specified in 335-14-5-.08(11) for all or part of the trust fund, he may submit a written request to the Department for release of the amount in excess of the current corrective action cost estimate covered by the trust fund.

9. Within 60 days after receiving a request from the owner or operator for release of funds as specified in 335-14-5-.08(11)(a)7. or (a)8., the Department shall approve or disapprove the request for release. If the Department approves the owner or operator's request for release the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

10. After the pay-in-period is completed, the Department may approve a release of funds during the corrective action period, if the owner or operator demonstrates to the Department that the value of the trust fund exceeds the remaining cost of corrective action.

11. After the pay-in-period is completed, an owner or operator or any other person authorized to conduct corrective action may request reimbursements for corrective action expenditures by submitting itemized bills to the Department. Within 60 days after receiving bills for corrective action care activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the corrective action expenditures are in accordance with the approved corrective action plan or otherwise justified. If the Department does not instruct the trustee to make such

reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

12. The Department will agree to termination of the trust when:

(i) The owner or operator substitutes alternate financial assurance as specified in 335-14-5-.08(11) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-5-.08(11) in accordance with 335-14-5-.08(11)(f).

(b) Surety bond guaranteeing performance of corrective action. An owner or operator may satisfy the requirements of 335-14-5-.08(11) by obtaining a surety bond which conforms to the requirements of 335-14-5-.08(6)(c) and submitting the bond to the Department.

(c) Corrective action letter of credit. An owner or operator may satisfy the requirements of 335-14-5-.08(11) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-5-.08(6)(d) and submitting the letter to the Department.

(d) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-5-.08(11) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing performance of corrective action, and letters of credit. The mechanisms must be as specified in 335-14-5-.08(11)(a), (b), and (c), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current corrective action cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for corrective action of the facility.

(e) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-5-.08(11) to meet the requirements of 35-14-5-.08(11) for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA or Alabama Identification Number, name, address, and the amount of funds for corrective action by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for corrective action any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(f) Release of the owner or operator from the requirements of 335-14-5-.08(11). Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that corrective action

has been completed for a hazardous waste disposal unit or solid waste management units in accordance with the approved plan, the Department will notify the owner or operator that he is no longer required to maintain financial assurance for corrective action of that unit, unless the Department has reason to believe that corrective action has not been in accordance with the approved plan, permit, or corrective action order requirements. The Department shall provide the owner or operator with a detailed written statement of any such reason to believe that corrective action has not been in accordance with the approved plan, permit, or order

(12) Wording of the instruments.

(a)1. A Trust agreement for a trust fund, as specified in 335-14-5-.08(4)(a), 335-14-5-.08(6)(a), or 335-14-5-.08(11)(a), or 335-14-6-.08(4)(a) or 335-14-6-.08(6)(a), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____"or "a national bank"], the "Trustee."

Whereas, the Alabama Department of Environmental Management (the "Department") an agency of the State of Alabama, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care, and/or corrective action of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and

the current closure, post-closure, and/or corrective action cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Department. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the Department shall direct, in writing, to provide for the payment of the costs of closure, post-closure, and/or corrective action care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Department from the Fund for closure and post-closure expenditures in such amounts as the Department shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees or legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with the counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor, the Department, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department or his designee, and the Trustee shall act and shall

be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the Department by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department or designee, or by the Trustee and the Department or designee, if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Alabama.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(a)1. as such rules were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in 335-14-5-.08(4)(a) and (6)(a) or 335-14-6-.08(4)(a) and (6)(a).

State of

County of_____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(b) A surety bond guaranteeing payment into a trust fund, as specified in 335-14-5-.08(4)(b) or 335-14-5-.08(6)(b) or 335-14-6-.08(4)(b) or 335-14-6-.08(6)(b), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

FINANCIAL GUARANTEE BOND

Date bond executed:	
Effective date:	
Principal:	[legal name and business address of owner or operator]
Type or organization:	[insert "individual," "joint venture," "partnership," or "corporation"]
State of incorporation:	
Surety(ies):	[name(s) and business address(es)]

EPA Identification Number, name, address and closure, post-closure, and/or corrective action amounts(s) for each facility guaranteed by this bond [indicate closure and post-closure amounts separately]:

Total penal sum of bond:	$
Surety's bond number:	

Know All Persons By These Presents, That we the Principal and Surety(ies) hereto are firmly bound to the Alabama Department of Environmental Management (the Department), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal for the payment of such sum only as is set forth opposite the name of such Surety but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Alabama Hazardous Wastes Management and Minimization Act of 1978 (AHWMMA), as amended, to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the Department or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in 335-14-5-.08 or 335-14-6-.08, as applicable, and obtain the Department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Department that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Department.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Department, as evidenced by the return receipts. The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Department.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure, post-closure, and/or corrective action amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Department.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(b) as such rules were constituted on the date this bond was executed.

Principal

[Signature(s)]

[Name(s)]

(Title(s)]

[Corporate seal]

Corporate Surety(ies)

[Name and address]	
State of incorporation:	
Liability limit:	$
[Signature(s)]	
[Name(s) and title(s)]	
[Corporate seal]	[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium:	$

(w) A surety bond guaranteeing performance closure, post-closure, and/or corrective action, as specified in 335-14-5-.08(4)(c), 335-14-5-.08(6)(c), or 335-14-5-.08(11)(b) must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

Date bond executed:	
Effective date:	
Principal:	[legal name and business address of owner or operator]
Type of organization:	[insert "individual," "joint venture," partnership," or "corporation"]
State of incorporation:	
Surety(ies):	[name(s) and business address(es)]

EPA Identification Number, name and address, and closure, post-closure, and/or corrective action amount(s) for each facility guaranteed by this bond [indicate closure, post-closure and corrective action amounts separately]:

Total penal sum of bond:	$
Surety's bond number:	

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Alabama Department of Environmental Management (the "Department"), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joining action or actions against any or all of us, and for all

other purposes each Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Alabama Hazardous Wastes Management and Minimization Act of 1978 (AHWMMA), as amended, to have a permit in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform corrective action at each facility for which this bond guarantees corrective action, in accordance with the corrective action plan and other requirements of the permit or correction action order, as such plan, permit, and/or order may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

Or, if the Principal shall provide alternate financial assurance as specified in 335-14-5-.08, and obtain the Department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Department that the Principal has been found in violation of the closure requirements of ADEM Admin. Code Rule 335-14-5, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the Department.

Upon notification by the Department that the Principal has been found in violation of the post-closure requirements of ADEM Admin. Code Rule 335-14-5, for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the Department.

Upon notification by the Department that the Principal has failed to provide alternate financial assurance as specified in ADEM Admin. Code Rule 335-14-5-.08, and obtain written approval of such assurance from the Department during the 90 days following receipt by both the Principal and the Department of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Department.

Upon notification by the Department that the Principal has been found in violation of the corrective action requirements of ADEM Admin. Code Rule 335-14-5, for a facility for which the bond guarantees performance of corrective action, the Surety(ies) shall either perform corrective action in accordance with the corrective action plan and other permit or corrective action order requirements or place the corrective action amount guaranteed for the facility into the standby trust fund as directed by the Department.

The surety(ies) hereby waive(s) notification of amendments to closure, post-closure, and/or corrective action plans, permits, orders, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Department, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond from the Department.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure, post-closure, and/or corrective action amount, provided that the penal sum does not increase by more than 20 percent in

any one year, and no decrease in the penal sum takes place without the written permission of the Department.

In Witness Whereof, the Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(c) as such rule was constituted on the date this bond was executed.

Principal

[Signature(s)]

[Name(s)]

(Title(s)]

[Corporate seal]

Corporate Surety(ies)

[Name and address]	
State of incorporation:	
Liability limit:	$
[Signature(s)]	
[Name(s) and title(s)]	
[Corporate seal]	[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium:	$

(d) A letter of credit, as specified in 335-14-5-.08(4)(d), 335-14-5-.08(6)(d), or 335-14-5-.08(11)(c) or 335-14-6-.08(4)(c) or 335-14-6-.08(6)(c), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

IRREVOCABLE STANDBY LETTER OF CREDIT

Director

Alabama Department of Environmental Management

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars $_____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No. _____, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Alabama Hazardous Wastes Management Act of 1978, as amended."

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(d) as such rules were constituted on the date shown immediately below.

_____ _____
[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(e) A certificate of insurance as specified in 335-14-5-.08(4)(e), 335-14-5-.08(6)(e) or 335-14-6-.08(4)(d) or 335-14-6-.08(6)(d), must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer (herein called the "Insurer"):

_____

Name and Address of Insured (herein called the "Insured"):

_____

Facilities Covered: [List for each facility: The EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure

care (these amounts for all facilities covered must total the face amount shown below).]

Face Amount: _____
Policy Number: _____
Effective Date: _____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and post-closure care" or "post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of ADEM Admin. Code Rules 335-14-5-.08(4)(e), 335-14-5-.08(6)(e), 335-14-6-.08(4)(d), and 335-14-6-.08(6)(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Department, the Insurer agrees to furnish to the Department a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(e) as such rules were constituted on the date shown immediately below.

[Authorized signature for Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]

(f) A letter from the chief financial officer, as specified in 335-14-5-.08(4)(f) or 335-14-5-.08(6)(f) or 335-14-6-.08(4)(e) or 335-14-6-.08(6)(e), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM THE CHIEF FINANCIAL OFFICER

[Address to the Director, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in ADEM Admin. Code R. 335-14-5-.08 and 335-14-6-.08.

[Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current cost estimates. Identify each cost estimate as to whether it is for one or more of the following: closure, post-closure, and plugging and abandonment.]

1. This firm is the owner or operator of the following facilities for which financial assurance for [identify one or more of the following: closure, and post-closure] care is demonstrated through the financial test specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08. The current closure, and post-closure cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the corporate guarantee specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08, the [identify one or more of the following: closure, and post-closure] cost(s) at the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the care so guaranteed are shown for each facility: _____

The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In states outside of Alabama, where U.S. EPA or some designated authority is administering financial responsibility requirements, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the [identify one or more of the following: closure, post-closure, and plugging and abandonment] cost(s) at the following facilities through a financial test and/or corporate guarantee substantially equivalent to the ones specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08. The current cost estimates covered by such a test or guarantee are shown for each facility: _____

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for [identify one or more of the following: closure, post-closure, and plugging and abandonment] cost(s) is not demonstrated to the state through the financial test or any other financial assurance mechanism specified in ADEM Admin. Code Rules 335-14-5-.08 and 335-14-6-.08 or equivalent or substantially equivalent Federal or State mechanism. The current cost estimates not covered by such financial assurance are shown for each facility: _____

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under Part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: _____

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of 335-14-5-.08(4)(f)1.(i) or (6)(f)1.(i) of or 335-14-5-.08(4)(e)1.(i) or (6)(e)1.(i) are used. Fill in Alternative II if the criteria of 335-14-5-.08(4)(f)1.(ii) or (6)(f)1.(ii) or 335-14-6-.08(4)(e)1.(ii) or (6)(e)1.(ii) are used.]

ALTERNATIVE I

1. Sum of current cost estimates [total of all cost estimates shown in the five paragraphs above]

$_____

*2. Total liabilities [if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]

$_____

*3. Tangible net worth $_____

*4. Net worth $_____

*5. Current assets $_____

*6. Current liabilities $_____

7. Net working capital [line 5 minus line 6] $_____

*8. The sum of net income plus depreciation, depletion, and amortization $_____

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $_____

_____

10. Is line 3 at least $10 million? _____ Yes ____ No

11. Is line 3 at least 6 times line 1? ____ Yes ____ No

12. Is line 7 at least 6 times line 1? ____ Yes ____ No

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 ____ Yes ____ No

14. Is line 9 at least 6 times line 1? ____ Yes ____ No

15. Is line 2 divided by line 4 less than 2.0? ____ ____ Yes No

16. Is line 8 divided by line 2 greater than 0.1? ____ ____ Yes No

17. Is line 5 divided by line 6 greater than 1.5? ____ ____ Yes No

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ALTERNATIVE II

1. Sum of current cost estimates [total of all cost estimates shown in the five paragraphs above] $_____

*2. Current bond rating of most recent issuance of this firm and name of rating service $_____

3. Date of issuance of bond _____

4. Date of maturity of bond _____

*5. Tangible net worth [if any portion of the cost estimates is included in “total liabilities” on your firm's financial statements, you may add the amount of that portion to this line] $_____

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $_____

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7. Is line 5 at least $10 million? ____ Yes ____ No

8. Is line 5 at least 6 times line 1? ____ Yes ____ No

*9. Are at least 90% of the firm's assets located in the U.S? If not, complete line 10. ____ ____ Yes No

10. Is line 6 at least 6 times line 1? ____ Yes ____ No

_____

I hereby certify that the wording of this letter is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(f) as such rules were constituted on the date shown immediately below.

[Signature]__

[Name]_____

[Title]_____

[Date]_____

(g) A letter from the chief financial officer, as specified in 335-14-5-.08(8)(f) or 335-14-6-.08(8)(f), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

LETTER FROM THE CHIEF FINANCIAL OFFICER

[Address to the Director, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463]

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert “and closure, and/or post-closure care” if applicable] as specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA Identification Number, name, and address.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert “sudden” or “nonsudden” or “both sudden and nonsudden”] accidental occurrences is being demonstrated through the financial test

specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08: _____

The firm identified above guarantees, through the guarantee specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____.

The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____.][Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure, and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in ADEM Admin. Code Rules 335-14-5-.08 and 335-14-6-.08. The current closure, and/or post-closure cost estimate covered by the test are shown for each facility: _____.

2. The firm identified above guarantees, through the guarantee specified in ADEM Admin. Code Rules 335-14-5-.08 and 335-14-6-.08, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____.

3. In States outside of Alabama, where the U.S. EPA or some designated authority is administering the financial requirements, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08. The current closure or post-closure cost estimates covered by such a test are shown for each facility: _____.

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the state through the financial test

or any other financial assurance mechanisms specified in ADEM Admin. Code Rule 335-14-5-.08 and 335-14-6-.08 or equivalent or substantially equivalent Federal or State mechanisms. The current closure, and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under Part 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements.]

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of 335-14-5-.08(8)(f)1.(i) 335-14-6-.08(8)(f)1.(i) of the Department Administrative Code are used. Fill in Alternative II if the criteria of 335-14-5-.08(8)(f)1.(ii) or 335-14-6-.08(8)(f)1.(ii) of the Department Administrative Code are used.]

ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated	$_____
*2. Current assets	$_____
*3. Current liabilities	$_____
4. Net working capital (line 2 minus line 3).	$_____
*5. Tangible net worth	$_____
*6. If less than 90% of assets are located in the U.S., give total U.S. assets	$_____

7. Is line 5 at least $10 million? ____ Yes ____ No

8. Is line 4 at least 6 times line 1? ____ Yes ____ No

9. Is line 5 at least 6 times line 1? ____ Yes ____ No

*10. Are at least 90% of assets located in the U.S.? If not, complete line 11 ____ Yes ____ No

11. Is line 6 at least 6 times line 1? ____ Yes ____ No

ALTERNATIVE II

1. Amount of annual aggregate liability coverage to be demonstrated $_____

2. Current bond rating of most recent issuance and name of rating service $_____

3. Date of issuance of bond _____

4. Date of maturity of bond _____

*5. Tangible net worth $_____

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S. $_____

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7. Is line 5 at least $10 million? ____ Yes ____ No

8. Is line 5 at least 6 times line 1? ____ Yes ____ No

*9. Are at least 90% of assets located in the U.S.? If not, complete line 10 ____ Yes ____ No

10. Is line 6 at least 6 times line 1? ____ Yes ____ No

[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]

Part B. Closure or Post-Closure Care and Liability Coverage

[Fill in Alternative I if the criteria of 335-14-5-.08(4)(f)1.(i) or 335-14-5-.08(6)(f)1.(i) and 335-14-5-.08(8)(f)1.(i) are used or if the criteria of 335-14-6-.08(4)(e)1.(i) or 335-14-6-.08(6)(e)1.(i) and 335-14-6-.08(8)(f)1.(i) are used. Fill in Alternative II if the criteria of 335-14-5-.08(4)(f)1.(ii) or 335-14-5-.08(6)(f)1.(ii) and 335-14-5-.08(8)(f)1.(ii) are used or if the criteria of 335-14-6-.08(4)(e)1.(ii) or 335-14-6-.08(6)(e)1.(ii) and 335-14-6-.08(8)(f)1.(ii) are used.]

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $_____

2. Amount of annual aggregate liability coverage to be demonstrated $_____

3. Sum of lines 1 and 2 $_____

*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $_____

*5. Tangible net worth $_____

*6. Net worth$_____

*7. Current assets $_____

*8. Current liabilities $_____

9. Net working capital (line 7 minus line 8) $_____

*10. The sum of net income plus depreciation, depletion, and amortization $_____

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $_____

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12. Is line 5 at least $10 million? _____ Yes _____ No

13. Is line 5 at least 6 times line 3? _____ Yes _____ No

14. Is line 9 at least 6 times line 3? _____ Yes _____ No

*15. Are at least 90% of assets located in the U.S.? If not, complete line 16. _____ Yes _____ No

16. Is line 11 at least 6 times line 3?. _____ Yes _____ No

17. Is line 4 divided by line 6 less than 2.0? _____ Yes _____ No

18. Is line 10 divided by line 4 greater than 0.1?. _____ Yes _____ No

19. Is line 7 divided by line 8 greater than 1.5? _____ Yes _____ No

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ALTERNATIVE II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $_____

2. Amount of annual aggregate liability coverage to be demonstrated $_____

3. Sum of lines 1 and 2 $_____

4. Current bond rating of most recent issuance and name of rating service $_____

5. Date of issuance of bond _____

6. Date of maturity of bond _____

*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) $_____

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $_____

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9. Is line 7 at least $10 million?. _____ Yes _____ No

10. Is line 7 at least 6 times line 3? _____ Yes _____ No

*11. Are at least 90% of assets located in the U.S.? If not, complete line 12. _____ Yes _____ No

12. Is line 8 at least 6 times line 3? _____ Yes _____ No

I hereby certify that the wording of this letter is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(g) as such rules were constituted on the date shown immediately below.

[Signature]_____

[Name]_____

[Title]_____

[Date]_____

(h)1. A corporate guarantee, as specified in 335-14-5-.08(4)(f) or 335-14-5-.08(6)(f) or 335-14-6-.08(4)(e) or 335-14-6-.08(6)(e), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

CORPORATE GUARANTEE FOR CLOSURE OR POST-CLOSURE CARE

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in 335-14-1-.02 to the Alabama Department of Environmental Management (the "Department").

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in ADEM Admin. Code Rules 335-14-5-.08(4)(f), 335-14-5-.08(6)(f), 335-14-6-.08(4)(e) and 335-14-6-.08(6)(e).

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA

Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by ADEM Admin. Code Rules 335-14-5-.08 and 335-14-6-.08 for the closure and post-closure care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees to the Department that in the event that [owner or operator] fails to perform [insert "closure," "post-closure" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in ADEM Admin. Code Rule 335-14-5-.08 or 335-14-6-.08, as applicable, in the name of the [owner or operator] in the amount of the current closure or post-closure cost estimates as specified in ADEM Admin. Code Rule 335-14-5-.08 or 335-14-6-.08.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Department and to [owner or operator] that he intends to provide alternate financial assurance as specified in ADEM Admin. Code Rule 335-14-5-.08 or 335-14-6-.08, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the Department by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in ADEM Admin. Code Rule 335-14-5-.08 or 335-14-6-.08, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to ADEM Admin. Code Rule 335-14-5 or 335-14-6.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of ADEM Admin. Code Rules 335-14-5-.08 and 335-335-14-6-.08 for the above-listed facilities, except as provided in paragraph 10. of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the Department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the Department approves, alternate closure, and/or post-closure care coverage complying with ADEM Admin. Code Rules 335-14-5-.08 and/or 335-14-6-.08.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator]:

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Department and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in ADEM Admin. Code Rule 335-14-5-.08 or 335-14-6-.08, as applicable, and obtain written approval of such assurance from the Department within 90 days after a notice of cancellation by the guarantor is received by the Department from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the Department or by [owner of operator]. Guarantor also expressly waives notice of amendments or modifications of the closure, and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(h) as such rules were constituted on the date first above written.

Effective date: _____
[Name of guarantor] _____
[Authorized signature for guarantor] _____
[Name of person signing] _____
[Title of person signing] _____
Signature of witness or notary: _____

2. A guarantee, as specified in 335-14-5-.08(8)(g) or 335-14-6-.08(8)(g), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of _____" and insert name of State; if incorporated outside the United States, insert the name of the country in which

incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary", "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in [335-14-1-.02]", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in ADEM Admin. Code Rules 335-14-5-.08(8)(g) and 335-14-6-.08(8)(g).

2. [Owner or operator] owns or operates the following hazardous waste management facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name and address; and if guarantor is incorporated outside the United States, list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies the ADEM Administrative Code third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:

(A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Alabama Department of Environmental Management ("the Department") and to [owner or operator] that he intends to provide alternate liability coverage as specified in ADEM Admin. Code Rules 335-14-5-.08(8) and 335-14-6-.08(8), as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the Department, by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Department of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage, as specified in ADEM Admin. Code Rule 335-14-5-.08(8) or 335-14-6-.08(8), in the name of [owner or operator], unless [owner or operator] has done so.

8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by ADEM Admin. Code Rules 335-14-5-.08(8) and 335-14-6-.08(8), provided that such modification shall become effective only if the Department does not disapprove the modification within 30 days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of ADEM Admin. Code paragraphs 335-14-5-.08(8) and 335-14-6-.08(8) for the above-listed facility(ies), except as provided in paragraph 10. of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]: Guarantor may terminate this guarantee by sending notice by certified mail to the Department and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the Department approves alternate liability coverage complying with ADEM Admin. Code Rules 335-14-5-.08(8) and/or 335-14-6-.08(8). [Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator: Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Department and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from

operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[_____].

[Signatures]

Principal

[Notary] Date

[Signatures]

Claimant(s)

[Notary] Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in 335-14-5-.08(12)(h)2. as such Rules were constituted on the date shown immediately below.

Effective date: _____
[Name of guarantor] _____
[Authorized signature for guarantor] _____
[Name of person signing] _____
[Title of person signing] _____
Signature of witness or notary: _____

(i) A hazardous waste facility liability endorsement as required in 335-14-5-.08(8) or 335-14-6-.08(8) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY LIABILITY ENDORSEMENT

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under ADEM Admin. Code Rule 335-14-5-.08(8) or 335-14-6-.08(8). The coverage applies at [list EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for

multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in ADEM Admin. Code Rule 335-14-5-.08(8)(f) or 335-14-6-.08(8)(f).

(c) Whenever requested by the Alabama Department of Environmental Management (the Department), the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Department.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department.

Attached to and forming part of policy No._____ issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of insured] of [address] this_____ day of _____ 20____. The effective date of said policy is _____ day of _____ 20_____.

I hereby certify that the wording of this endorsement is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(i) as such rule was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(j) A certificate of liability insurance as required in 335-14-5-.08(8) or 335-14-6-.08(8) must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under ADEM Admin. Code Rule 335-14-5-.08(8) or 335-14-6-.08(8). The coverage applies at [list EPA Identification Number, name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number _____, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in ADEM Admin. Code Rule 335-14-5-.08(8)(f) or 335-14-6-.08(8)(f).

(c) Whenever requested by the Alabama Department of Environmental Management ("the Department"), the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Department.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department.

I hereby certify that the wording of this instrument is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(j) as such rule was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(k) A letter of credit, as specified in 335-14-5-.08(8)(h), or 335-14-6-.08(8)(h), must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Name and address of Issuing Institution

Department

Alabama Department of Environmental Management

Dear Sir or Madam: We hereby establish our Irrevocable Letter of Credit No. _____ in the favor of [“any and all third-party liability claimants” or insert name of trustee of the standby trust fund”], at the request and for the account of [owner's or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $_____ per occurrences and the annual aggregate amount of [in words] U.S. dollars $_____, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars $ per occurrence, and the annual aggregate amounts of [in words] U.S. dollars $_____, for nonsudden accidental occurrences available upon presentation of a sight draft, bearing reference to this letter of credit No. _____, and (1) a signed certificate reading as follows:

Certification of Valid Claim

The undersigned, as parties [insert grantor] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $____. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert grantor] arising from, and in the course of, employment by [insert grantor); or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert grantor]. This exclusion applies:

(A) Whether [insert grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert grantor];

(2) Premises that are sold, given away or abandoned by [insert grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert grantor];

(4) Personal property in the care, custody or control of [insert grantor];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert grantor] are performing operations, if the property damage arises out of these operations.

[Signatures]

Grantor

[Signatures]

Claimant(s)

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from operation of the Grantor's facility or group of facilities.

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Department, and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in 335-14-5-.08(12)(k) as such Rules were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce" or "the Uniform Commercial Code"].

(l) A surety bond, as specified in 335-14-5-.08(8)(i) or 335-14-6-.08(8)(i) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Payment Bond

Surety Bond No. [Insert number]

Parties [insert name and address of owner or operator], Principal, incorporated in [insert State of Incorporation] of [insert city and State of principal place of business] and [insert name and address of surety company(ies), Surety Company(ies), of [insert surety(ies) place of business].

EPA Identification Number, name, and address for each facility guaranteed by this bond:

	Sudden accidental occurrences	**Nonsudden accidental occurrences**
Penal Sum Per Occurrence	(insert amount]	(insert amount]
Annual Aggregate	[insert amount]	[insert amount]

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its (their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 22-30-16 of the Alabama Hazardous Wastes Management and Minimization Act of 1978, as amended.

(2) Rules of the Alabama Department of Environmental Management Administrative Code, Division 335-14, particularly Rules 335-14-5-.08(8) and 335-14-6-.08(8), if applicable.

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by [“sudden” and/or “nonsudden”] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal]. This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of
$[ ].

[Signature]

Principal

[Notary] Date

[Signature(s)]

Claimant(s)

[Notary] Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert “primary” or “excess”] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Department forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Department as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Department.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its [their] obligation on this bond.

(10) This bond is effective from [insert date] [12:01 a.m., standard time, at the address of the Principal as stated herein] and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in

335-14-5-.08(12)(l), as such Rules were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate Seal]

CORPORATE SURETY(IES)

[Name and address]

State of incorporation: _____

Liability Limit: $_____

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium:$_____

(m)1. A trust agreement, as specified in 335-14-5-.08(12)(j) or 335-14-6-.08(12)(j) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of_____" or "a national bank"], the "trustee".

Whereas the Alabama Department of Environmental Management (the "Department") has established certain Rules applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ [up to $1 million] per occurrence and _____ [up to $2 million] annual aggregate for sudden accidental occurrences and _____ (up to $3 million] per occurrence and _____ [up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) the spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away, or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody, or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except

that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $[ ].

[Signatures]

Grantor

[Signature(s)]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trust participating therein; and

(x) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in

connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Department to the Trustee shall be in writing, signed by the Department, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any

person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the fund provide a written notice of nonpayment to the Department.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Department will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto

affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 335-14-5-.08(12)(m) as such Rules were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in 335-14-5-.08(8)(j) or 335-14-6-.08(8)(j).

State of_____

County of_____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(n)1. A standby trust agreement as specified in 335-14-5-.08(8)(h) or 335-14-6-.08(8)(h) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee],

[insert, "incorporated in the State of_____" or "a national bank"], the "trustee".

Whereas the Alabama Department of Environmental Management (the "Department"), has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ [up to $1 million] per occurrence and _____ [up to $2 million] annual aggregate for sudden accidental occurrences and _____ [up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned by [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered [insert “primary” or “excess”] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Department.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] hazardous waste treatment, storage, or disposal facility should be paid in the amount of $ _____ .

[Signature]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of 335-14-5-.08(12)(k) and Section 4. of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate

capacity, or in any other banking institutions affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Department of the Alabama Department of Environmental Management and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's order, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders,

requests, and instructions from the Grantor and/or the Department except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Department, or by the Trustee and the Department if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14., this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Department, or by the Trustee and the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Department will agree to termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Department will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Alabama.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in ADEM Admin. Code Rule 335-14-5-.08(12)(n) as such regulations were constituted on the date first above written.

_____

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

_____
[Signature of Trustee]

Attest:

[Title]

[Seal]

2. The following is an example of the certification of acknowledgment which must accompany the trust agreement for a standby trust fund as specified in 335-14-5-.08(8)(h) or 335-14-6-.08(8)(h). State requirements may differ on the proper content of this acknowledgment.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

_____
[Signature of Notary Public]

Authors: Stephen C. Maurer; Vernon C. Crockett; Amy P. Zachry; Justin Martindale; C. Edwin Johnston; James L. Bryant; Vernon H. Crockett, Bradley N. Curvin, Theresa A. Maines; Brian C. Espy; Heather M. Jones; Gary L. Ellis; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-12, 22-30-16.
History: February 9, 1983.
Amended: April 9, 1986; September 29, 1986; February 15, 1988; August 24, 1989; December 6, 1990; January 25, 1992; January 5, 1995; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; May 27, 2004; March 31, 2005; April 3, 2007; March 31, 2009; March 30, 2010; March 26, 2013; March 31, 2017; April 6, 2018.

335-14-5-.09 Use and Management of Containers.

(1) Applicability. The regulations in 335-14-5-.09 apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as 335-14-5-.01 provides otherwise.

(2) Condition of containers. If a container holding a hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of 335-14-5.

(3) Compatibility of waste with containers. The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

(4) Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

(c) Containers having a capacity greater than 30 gallons must not be stacked over two containers high.

(5) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. The owner or operator must also note the number and capacity of hazardous waste containers present. These inspections must be documented in accordance with 335-14-5-.02(6)(d).

[**Comment:** See 335-14-5-.02(6)(c) and 335-14-5-.09(2) for remedial action required if deterioration or leaks are detected.]

(6) Containment.

(a) Container storage areas must have a containment system that is designed and operated in accordance with 335-14-5-.09(6)(b), except as otherwise provided by 335-14-5-.09(6)(c).

(b) A containment system must be designed and operated as follows:

1. A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

2. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

3. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

4. Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-5-.09(6)(b)3. to contain any run-on which might enter the system; and

5. Spilled or leaked waste must be removed from the sump or collection area in a timely manner not to exceed 24 hours after detection. Accumulated precipitation must be removed in as timely a manner necessary to prevent overflow of the collection system.

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by 335-14-5-.09(6)(b), except as provided by 335-14-5-.09(6)(d) or provided that:

1. The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2. The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by 335-14-5-.09(6)(b):

1. F020, F021, F022, F023, F026, and F027;

2. **[Reserved].**

(7) Special requirements for ignitable or reactive waste. Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

(8) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials (see 335-14-5 - Appendix V for examples), must not be placed in the same container unless 335-14-5-.02(8)(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall or other device.

(9) Closure and post-closure care.

(a) At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed.

(b) If the owner or operator cannot remove or decontaminate all waste required by 335-14-5-.09(9)(a), then the owner or operator must close the container storage area and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills [335-14-5-.14(11)].

(10) Air Emission Standards. The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of 335-14-5-.27, 335-14-5-.28, and 335-14-5-.29.

Authors: Stephen C. Maurer, James W. Hathcock, C. Edwin Johnston, Michael B. Champion, Theresa A. Maines, Heather M. Jones; Metz Duites; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: July 19, 1982. **Amended:** Effective: April 9, 1986; **Amended:** Effective: February 15, 1988; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: January 5, 1995; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: April 3, 2007; **Amended:** Effective: May 27, 2008; **Amended:** Effective: April 6, 2018; **Amended:** Filed February 28, 2020; Effective: April 13, 2020.

335-14-5-.10 Tank Systems.

(1) Applicability. The requirements of 335-14-5-.10 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in 335-14-5-.10(1)(a), (b), and (c) or in 335-14-5-.01.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in 335-14-5-.10(4). To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication No. SW-846, as incorporated by reference in 335-14-1-.02(2).

(b) Tank systems, including sumps, as defined in 335-14-1-.02, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in 335-14-5-.10(4)(a).

(c) Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in 335-14-1-.02 and regulated under 335-14-5-.23, must meet the requirements of 335-14-5-.10.

(2) Assessment of existing tank system's integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of 335-14-5-.10(4), the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in 335-14-5-.10(2)(c), the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by a qualified professional engineer, in accordance with 335-14-8-.02(2)(d), that attests to the tank system's integrity by January 12, 1988.

(b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

1. Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

2. Hazardous characteristics of the waste(s) that have been and will be handled;

3. Existing corrosion protection measures;

4. Documented age of the tank system, if available (otherwise, an estimate of the age); and

5. Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination that is certified by a qualified professional engineer in accordance with 335-14-8-.02(2)(d) that addresses cracks, leaks, corrosion, and erosion.

[**Note**: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.]

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986, must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with s335-14-5-.10(2)(a), a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of 335-14-5-.10(7).

(3) Design and installation of new tank systems or components.

(a) Owners or operators of new tank systems or components must obtain and submit to the Department, at time of submittal of Part B information, a written assessment, reviewed and certified by a qualified professional engineer, in accordance with 335-14-8-.02(2)(d) attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the Department to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

1. Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;

2. Hazardous characteristics of the waste(s) to be handled;

3. For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(I) Soil moisture content;

(II) Soil pH;

(III) Soil sulfides level;

(IV) Soil resistivity;

(V) Structure to soil potential;

(VI) Influence of nearby underground metal structures (e.g., piping);

(VII) Existence of stray electric current;

(VIII) Existing corrosion-protection measures (e.g., coating, cathodic protection), and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(I) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc;

(II) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (e.g., impressed current or sacrificial anodes); and

(III) Electrical isolation devices such as insulating joints, flanges, etc.

[**Note**: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", may be used, where applicable, as guidelines in providing corrosion protection for tank systems.]

4. For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

5. Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone; and

(iii) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or a qualified professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

1. Weld breaks;

2. Punctures;

3. Scrapes of protective coatings;

4. Cracks;

5. Corrosion;

6. Other structural damage or inadequate construction/installation. All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed into use.

(e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

[**Note**: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems", or ANSI Standard B31.3, "Petroleum Refinery Piping", and ANSI Standard B31.4 "Liquid Petroleum Transportation Piping System," may be used, where applicable, as guidelines for proper installation of piping systems.]

(f) The owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under 335-14-5-.10(3)(a)3. or other corrosion protection if the Department believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of 335-14-5-.10(3)(b) through (f) that attest that the tank system was properly designed and installed and that repairs, pursuant to 335-14-5-.10(3)(b) and (d) were performed. These written statements must also include the certification statement as required in 335-14-8-.02(2)(d).

(4) <u>Containment and detection of releases</u>.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of 335-14-5-.10(4) must be provided (except as provided in 335-14-5-.10(4)(f) and (g)):

1. For all new and exciting tank systems or components, prior to their being put into service;

2. For tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

(b) Secondary containment systems must be:

1. Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and

2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of 335-14-5-.10(4)(b), secondary containment systems must be at a minimum:

1. Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

2. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

3. Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the Department that existing detection technologies or site conditions will not allow detection of a release within 24 hours; and

4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the Department that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

[**Note**: If the collected material is a hazardous waste under 335-14-2, it is subject to management as a hazardous waste in accordance with all applicable requirements of Chapters 335-14-3 through 335-14-6. If the collected material is discharged through a point source to waters of the United States, it is subject to the

requirements of Sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of Section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302.]

(d) Secondary containment for tanks must include one or more of the following devices:

1. A liner (external to the tank);

2. A vault;

3. A double-walled tank; or

4. An equivalent device as approved by the Department.

(e) In addition to the requirements of 335-14-5-.10(4)(b), (c), and (d), secondary containment systems must satisfy the following requirements:

1. External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps, and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

(v) Provided with an impermeable interior coating or lining if a concrete liner is used. The interior coating or lining must be compatible with the stored waste and prevent migration of the waste into the concrete.

2. Vault systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints (if any);

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(I) Meets the definition of ignitable waste under 335-14-2-.03(2); or

(II) Meets the definition of reactive waste under 335-14-2-.03(4) and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3. Double-walled tanks must be:

(i) Designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell.

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the Department, and the Department concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

[**Note**: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.]

(f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, doublewalled piping) that meets the requirements of 335-14-5-.10(4)(b) and (c) except for:

1. Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements of 335-14-5-.10(4) if the Department finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the groundwater; or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to groundwater or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with 335-14-5-.10(4)(g)2., be exempted from the secondary containment requirements of 335-14-5-.10(4).

1. In deciding whether to grant a variance based on a demonstration of equivalent protection of groundwater and surface water, the Department will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and groundwater; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to groundwater or surface water.

2. In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the Department will consider:

(i) The potential adverse effects on groundwater, surface water, and land quality taking into account:

(I) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(II) The hydrogeological characteristics of the facility and surrounding land,

(III) The potential for health risks caused by human exposure to waste constituents,

(IV) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(V) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on groundwater quality, taking into account:

(I) The quantity and quality of groundwater and the direction of groundwater flow,

(II) The proximity and withdrawal rates of groundwater users,

(III) The current and future uses of groundwater in the area, and

(IV) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(I) The quantity and quality of groundwater and the direction of groundwater flow,

(II) The patterns of rainfall in the region,

(III) The proximity of the tank system to surface waters,

(IV) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(V) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality, and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(I) The patterns of rainfall in the region, and

(II) The current and future uses of the surrounding land.

3. The owner or operator of a tank system for which a variance from secondary containment had been granted in accordance with the requirements of 335-14-5-.10(4)(g)1., at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of 335-14-5-.10(7), except 335-14-5-.10(7)(d), and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(I) Enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

(II) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with 335-14-5-.10(4)(g)3.(ii), comply with the requirements of 335-14-5-.10(8)(b).

4. The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of 335-14-5-.10(4)(g)1., at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of 335-14-5-.10(7)(a), (b), (c), and (d);

(iv) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if groundwater has been contaminated, the owner or operator must comply with the requirements of 335-14-5-.10(8)(b); and

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of 335-14-5-.10(4)(a) through (f) or reapply for a variance from secondary containment and meet the requirements for new tank systems in 335-14-5-.10(3) if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed and groundwater or surface water has not been contaminated.

(h) The following procedures must be followed in order to request a variance from secondary containment:

1. The Department must be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in 335-14-5-.10(4)(g) according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with 335-14-5-.10(4)(a).

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation.

2. As part of the notification, the owner or operator must also submit to the Department a description of the steps necessary to conduct the demonstration

and a timetable for completing each of the steps. The demonstration must address each of the factors listed in 335-14-5-.10(4)(g)1. or 335-14-5-.10(4)(g)2.

3. The demonstration for a variance must be completed within 180 days after notifying the Department of an intent to conduct the demonstration; and

4. If a variance is granted under 335-14-5-.10(4)(h), the Department will require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.

(i) All tank systems, until such time as secondary containment that meets the requirements of 335-14-5-.10(4) is provided, must comply with the following:

1. For non-enterable underground tanks, a leak test that meets the requirements of 335-14-5-.10(2)(b)5. or other tank integrity method, as approved or required by the Department, must be conducted at least annually.

2. For other than non-enterable underground tanks, the owner or operator must either conduct a leak test as in 335-14-5-.10(4)(i)1. or develop a schedule and procedure for an assessment of the overall condition of the tank system by a qualified professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated.

3. For ancillary equipment, a leak test or other integrity assessment as approved by the Department must be conducted at least annually.

[**Note**: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks", 4th Edition, 1981, may be used, where applicable, as guidelines for assessing the overall condition of the tank system.]

4. The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with 335-14-5-.10(4)(i)l. through (i)3.

5. If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in 335-14-5-.10(4)(i)1. through (i)3., the owner or operator must comply with the requirements of 335-14-5-.10(7).

(5) General operating requirements.

(a) Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tanks, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

1. Spill prevention controls (e.g., check valves, dry disconnect couplings);

2. Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

3. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator must comply with the requirements of 335-14-5-.10(7) if a leak or spill occurs in the tank system.

(6) Inspections.

(a) The owner or operator must develop and follow a schedule and procedure for inspecting overfill controls.

(b) The owner or operator must inspect at least once each operating day data gathered from monitoring and leak detection equipment(e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.

[**Note**: 335-14-5-.02(6)(c) requires the owner or operator to remedy any deterioration or malfunction he finds. 335-14-5-.10(7) requires the owner or operator to notify the Department within 24 hours of confirming a leak. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of a release.]

(c) In addition, except as noted under 335-14-5-.10(6)(d), the owner or operator must inspect at least once each operating day:

1. Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and

2. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

(d) Owners or operators of tank systems that either use leak detection systems to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly those areas described in 335-14-5-.10(6)(c)1. and 2. Use of the alternate inspection schedule

must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

(e) Ancillary equipment that is not provided with secondary containment, as described in 335-14-5-.10(4)(f)1. through 4., must be inspected at least once each operating day.

(f) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

1. The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter, and

2. All sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

[**Note**: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.]

(g) The owner or operator must document in the operating record of the facility an inspection of those items in 335-14-5-.10(6)(a) through (f).

(7) Response to leaks or spills and disposition of leaking or unfit-for-use tank systems. A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:

(a) Cessation of Use; prevent flow or addition of wastes. The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of waste from tank system or secondary containment system.

1. If the release was from the tank system, the owner/operator must, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

2. If the material released was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The owner/operator must immediately conduct a visual inspection of the release and, based upon that inspection:

1. Prevent further migration of the leak or spill to soils or surface water; and

2. Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

1. Any release to the environment, except as provided in 335-14-5-.10(7)(d)2. of this paragraph, must be reported to the Department within 24 hours of its detection. Report of a release pursuant to 40 CFR Part 302 does not satisfy this requirement.

2. A leak or spill of hazardous waste is exempted from the requirements of 335-14-5-.10(7)(d) if it is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned up.

3. Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Department:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Department as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

1. Unless the owner/operator satisfies the requirements of 335-14-5-.10(7)(e)2. through (e)4., the tank system must be closed in accordance with 335-14-5-.10(8).

2. If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

3. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

4. If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of 335-14-5-.10(4) before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of 335-14-5-.10(7)(f) are satisfied. If a component is replaced to comply with the requirements of 335-14-5-.10(7)(e), that component must satisfy the requirements for new tank systems or components in 335-14-5-.10(3) and 335-14-5-.10(4). Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with 335-14-5-.10(4) prior to being returned to use.

(f) Certification of major repairs. If the owner/operator has repaired a tank system in accordance with 335-14-5-.10(7)(e), and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by a qualified professional engineer in accordance with 335-14-8-.02(2)(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be placed in the operating record and maintained until closure of the facility.

[**Note**: The Department may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under RCRA Section 3004(v), 3008(h), or 7003(a) or the AHWMMA, respectively, requiring corrective action or such other response as deemed necessary to protect human health or the environment.]

[**Note**: See 335-14-5-.02(6)(c) for the requirements necessary to remedy a failure. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of certain releases.]

(8) <u>Closure and post-closure care</u>.

(a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless 335-14-2-.01(3)(d) applies. The

closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in 335-14-5-.07 and 335-14-5-.08.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in 335-14-5-.10(8)(a), then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills [335-14-5-.14(11)]. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in 335-14-5-.07 and 335-14-5-.08.

(c) If an owner or operator has a tank system that does not have secondary containment that meets the requirements of 335-14-5-.10(4)(b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with 335-14-5-.10(4)(g), then:

1. The closure plan for the tank system must include both a plan for complying with 335-14-5-.10(8)(a) and a contingent plan for complying with 335-14-5-.10(8)(b).

2. A contingent post-closure plan for complying with 335-14-5-.10(8)(b) must be prepared and submitted as part of the permit application.

3. The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under 335-14-5-.10(8)(a).

4. Financial assurance must be based on the cost estimates in 335-14-5-.10(8)(c)3.

5. For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under 335-14-5-.07 and 335-14-5-.08.

(9) <u>Special requirements for ignitable or reactive wastes</u>.

(a) Ignitable or reactive waste must not be placed in tank systems, unless:

1. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or 335-14-2-.03(4); and

(ii) 335-14-5-.02(8)(b) is complied with; or

2. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

3. The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code", (1977 or 1981), (incorporated by reference in 335-14-1-.02(2).

(10) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank system, unless 335-14-5-.02(8)(b), is complied with.

(b) Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless 335-14-5-.02(8)(b) is complied with.

(11) Air emission standards. The owner or operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of 335-14-5-.27, 335-14-5-.28, 335-14-5-.29.

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335-14-5-.11 Surface Impoundments.

(1) Applicability. The requirements of 335-14-5-.11 apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as 335-14-5-.01(1) provides otherwise.

(2) Design and operating requirements.

(a) Any surface impoundment that is not covered by 335-14-5-.11(2)(c) or 335-14-6-.11(2) must have a liner for all portions of the impoundment (except for existing portions of such impoundments). The liner must be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or groundwater or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with 335-14-5-.11(9)(a)1. For impoundments that will be closed in accordance with 335-14-5-.11(9)(a)2., the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

1. Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

2. Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

3. Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator will be exempted from the requirements of 335-14-5-.11(2)(a) if the Director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (335-14-5-.06(4)) into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the Director will consider:

1. The nature and quantity of the wastes;

2. The proposed alternate design and operation;

3. The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and groundwater or surface water; and

4. All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992 and each replacement of an existing surface impoundment unit that is to commence reuse

after July 29, 1992 must install two or more liners and a leachate collection and removal system between such liners. "Construction commences" is as defined in 335-14-1-.02 under "existing facility."

1.(i) The liner system must include:

(I) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(II) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than $1X10^{-7}$ cm/sec.

(ii) The liners must comply with 335-14-5-.11(2)(a)1., 2., and 3.

2. The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in 335-14-5-.11(2)(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of $1X10^{-1}$ cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of $3X10^{-4}$ m^2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the surface impoundment and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes and any waste cover materials or equipment used at the surface impoundment;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump(s). The design

of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

3. The owner or operator shall collect and remove pumpable liquids in the sumps to minimize the head on the bottom liner.

4. The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak detection system will not be adversely affected by the presence of groundwater.

(d) The Director may approve alternative design or operating practices to those specified in 335-14-5-.11(2)(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

1. Will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the liners and leachate collection and removal system specified in 335-14-5-.11(2)(c); and

2. Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in 335-14-5-.11(2)(c) may be waived by the Director for any monofill if:

1. The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristics in 335-14-2-.03(5); and

2.(i)(I) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of 335-14-5-.11(2)(e), the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of 335-14-5-.11(2)(c) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including but not limited to groundwater monitoring and corrective action;

(II) The monofill is located more than one-quarter mile from an “underground source of drinking water” (as that term is defined in 335-14-1-.02); and

(III) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under RCRA Section 3005(c) and the AHWMMA; or

(ii) The owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(f) The owner or operator of any replacement surface impoundment unit is exempt from 335-14-5-.11(2)(c) if:

1. The existing unit was constructed in compliance with the design standards of Sections 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act and the AHWMMA; and

2. There is no reason to believe that the liner is not functioning as designed.

(g) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(h) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

(i) The Department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of 335-14-5-.11(2) are satisfied.

(3) Action leakage rate.

(a) The Director shall approve an action leakage rate for surface impoundment units subject to 335-14-5-.11(2)(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under 335-14-5-.11(7)(d) to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the

average daily flow rate for each sump must be calculated weekly during the active life and closure period, and if the unit is closed in accordance with 335-14-5-.11(9)(b), monthly during the post-closure period when monthly monitoring is required under 335-14-5-.11(7)(d).

(4) Response actions.

(a) The owner or operator of surface impoundment units subject to 335-14-5-.11(2)(c) or (d) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-5-.11(4)(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedance within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-5-.11(4)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-5-.11(b)3., 4., and 5., the owner or operator must:

1.(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(5) **[Reserved].**

(6) **[Reserved].**

(7) Monitoring and inspection.

(a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from 335-14-5-.11(2)(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots or foreign materials). Immediately after construction or installation:

1. Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

2. Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of overtopping control systems;

2. Sudden drops in the level of the impoundment's contents; and

3. Severe erosion or other signs of deterioration in dikes or other containment devices.

4. The presence of leachate in and proper functioning of the leachate collection and removal system (between the liners), where present.

[**NOTE**: These inspections must be documented in accordance with 335-14-5-.02(6)(d).]

(c) Prior to the issuance of a permit, and after any extended period of time (at least six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

1. Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

2. Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

(d)1. An owner or operator required to have a leak detection system under 335-14-5-.11(2)(c) or (d) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

2. After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

3. "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(8) Emergency repairs: contingency plans.

(a) A surface impoundment must be removed from service in accordance with 335-14-5-.11(8)(b) when:

1. The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the normal operating flows into or out of the impoundment; or

2. The dike leaks.

(b) When a surface impoundment must be removed from service as required by 335-14-5-.11(8)(a), the owner or operator must:

1. Immediately shut off the flow or stop the addition of wastes into the impoundment;

2. Immediately contain any surface leakage which has occurred or is occurring;

3. Immediately stop the leak;

4. Take any other necessary steps to stop or prevent catastrophic failure;

5. If a leak cannot be stopped by any other means, empty the impoundment; and

6. Notify the Department of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in 335-14-5-.04, the owner or operator must specify a procedure for complying with the requirements of 335-14-5-.11(8)(b).

(d) No surface impoundment that has been removed from service in accordance with the requirements of 335-14-5-.11(8) may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

1. If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be recertified in accordance with 335-14-5-.11(7)(c).

2. If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(i) For any existing portion of the impoundment, a liner must be installed in compliance with 335-14-5-.11(2)(a); and

(ii) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of 335-14-5-.11(8) and that is not being repaired must be closed in accordance with the provisions of 335-14-5-.11(9).

(9) Closure and post-closure care.

(a) At closure, the owner or operator must:

1. Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies; or

2.(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues; and

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(I) Provide long-term minimization of the migration of liquids into and through the closed impoundment;

(II) Function with minimum maintenance;

(III) Promote drainage and minimize erosion or abrasion of the final cover;

(IV) Minimize and accommodate settling and subsidence so that the cover's integrity is maintained;

(V) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present; and

(VI) To meet the requirements of 335-14-5-.11(9)(a)2. (iii) the final cover must meet the requirements of 335-14-5-.14(11)(b)1. through 3., unless 335-14-5-.14(11)(c) applies.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in 335-14-5-.07(8) through (11), including maintenance and monitoring throughout the post-closure care period [specified in the permit under 335-14-5-.07(8)]. The owner or operator must:

1. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

2. Maintain and monitor the leak detection system in accordance with 335-14-5-.11(2)(c)2.(iv) and (2)(c)3. and 335-14-5-.11(7)(d), and comply with all other applicable leak detection system requirements of 335-14-5;

3. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of 335-14-5-.06;

4. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

5. Maintain, monitor, and continue to operate (where applicable) the leachate collection and removal system until leachate is no longer observed.

6. The owner or operator must visually inspect the final cover to identify evidence of settling, subsidence, erosion, or other events expected to limit the integrity or effectiveness. These inspections must be documented in an inspection log, as required by 335-14-5-.02(6)(d). The Department will specify in the permit the inspection schedule.

(c)1. If an owner or operator plans to close a surface impoundment in accordance with 335-14-5-.11(9)(a)1., and the impoundment does not comply with the

liner requirements of 335-14-5-.11(2)(a) and is not exempt from them in accordance with 335-14-5-.11(2)(b), then:

(i) The closure plan for the impoundment under 335-14-5-.07(3) must include both a plan for complying with 335-14-5-.11(9)(a)1. and a contingent plan for complying with 335-14-5-.11(9)(a)2. in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator must prepare a contingent post-closure plan under 335-14-5-.07(9) for complying with 335-14-5-.11(9)(b) in case not all contaminated subsoils can be practicably removed at closure.

2. The cost estimates calculated under 335-14-5-.08(3) and (5) for closure and post-closure care of an impoundment subject to 335-14-5-.11(9)(c) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under 335-14-5-.11(9)(a)1.

(10) Special requirements for ignitable or reactive waste. Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of 335-14-9, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-5-.02(8)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

(11) Special requirements for incompatible wastes. Incompatible wastes, or incompatible wastes and materials, (see 335-14-5 - Appendix V for examples) must not be placed in the same surface impoundment, unless 335-14-5-.02(8)(b) is complied with.

(12) Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in 335-14-5-.11(12)(a) and in accord with all other applicable requirements of 335-14-5. The factors to be considered are:

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Department may determine that additional design, operating and monitoring requirements are necessary for surface impoundments managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water or air so as to protect human health and the environment.

(13) Air emission standards. The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of 335-14-5-.27, 335-14-5-.28, and 335-14-5-.29.

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335-14-5-.12 Waste Piles.

(1) Applicability.

(a) The requirements of 335-14-5-.12 apply to owners and operators of facilities that store or treat hazardous waste in piles, except as 335-14-5-.01(1) provides otherwise.

(b) The requirements of 335-14-5-.12 do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under 335-14-5-.14 (Landfills).

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under 335-14-5-.12(2) or under 335-14-5-.06, provided that:

1. Liquids or materials containing free liquids are not placed in the pile;

2. The pile is protected from surface water run-on by the structure or in some other manner;

3. The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

4. The pile will not generate leachate through decomposition or other reactions.

(2) Design and operating requirements.

(a) A waste pile (except for an existing portion of a waste pile) must have:

1. A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or groundwater or surface water) during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

2. A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The Department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

(II) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(ii) Designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator will be exempted from the requirements of 335-14-5-.12(2)(a) if the Director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents [see 335-14-5-.06(4)] into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the Director will consider:

1. The nature and quantity of the wastes;

2. The proposed alternate design and operation;

3. The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and groundwater or surface water; and

4. All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator of each new waste pile unit, unit, each lateral expansion of a waste pile unit, and each replacement of an existing waste pile unit must install two or more liners and a leachate collection and removal system above and between such liners.

1.(i) The liner system must include:

(I) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(II) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than $1X10^{-7}$ cm/sec.

(ii) The liners must comply with 335-14-5-.12(2)(a)1.(i), (ii), and (iii).

2. The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and

remove leachate from the waste pile during the active life and post-closure care period. The Director will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must comply with 335-14-5-.12(2)(c)3.(iii) and (iv).

3. The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in 335-14-5-.12(2)(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of $1x10^{-2}$ cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of $3X10^{-5}m^2$/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the waste pile and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the waste pile;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump(s). The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

4. The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

5. The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak detection system will not be adversely affected by the presence of groundwater.

(d) The Director may approve alternative design or operating practices to those specified in 335-14-5-.12(2)(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

1. Will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the liners and leachate collection and removal systems specified in 335-14-5-.12(2)(c); and

2. Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) 335-14-5-.12(2)(c) does not apply to monofills that are granted a waiver by the Director in accordance with 335-14-5-.11(2)(e).

(f) The owner or operator of any replacement waste pile unit is exempt from 335-14-5-.12(2)(c) if:

1. The existing unit was constructed in compliance with the design standards of Section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act and the AHWMMA; and

2. There is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

(h) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the pile contains any particular matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

(k) The Department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of 335-14-5-.12(2) are satisfied.

(3) Action leakage rate.

(a) The Director shall approve an action leakage rate for waste pile units subject to 335-14-5-.12(2)(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate

must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly flow rate from the monitoring data obtained under 335-14-5-.12(5)(c) to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period.

(4) Response actions.

(a) The owner or operator of waste pile units subject to 335-14-5-.12(2)(c) or (d) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-5-.12(4)(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedance within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-5-.12(4)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-5-.12(4)(b)3., 4., and 5., the owner or operator must:

1.(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(5) Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of piles exempt from 335-14-5-.12(2)(a)) and cover systems (e.g., membranes, sheets or coatings) must be inspected for uniformity, damage and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

1. Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

2. Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2. Proper functioning of wind dispersal control systems, where present; and

3. The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

[**NOTE**: These inspections must be documented in accordance with 335-14-5-.02(6)(d).]

(c) An owner or operator required to have a leak detection system under 335-14-5-.12(2)(c) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(6) **[Reserved].**

(7) Special requirements for ignitable or reactive waste. Ignitable or reactive waste must not be placed in a waste pile unless the waste and waste pile satisfy all applicable requirements of 335-14-9, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-5-.02(8)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(8) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see 335-154-5 - Appendix V for examples) must not be placed in the same pile, unless 335-14-5-.02(8)(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with 335-14-5-.02(8).

(9) Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-5-.12(9)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills [335-14-5-.14(11)].

(c)1. The owner or operator of a waste pile that does not comply with the liner requirements of 335-14-5-.12(2)(a)1. and is not exempt from them in accordance with 335-14-5-.12(1)(c) or 335-14-5-.12(2)(b), must:

(i) Include in the closure plan for the pile under 335-14-5-.07(3) both a plan for complying with 335-14-5-.12(9)(a) and a contingent plan for complying with 335-14-5-.12(9)(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under 335-14-5-.07(9) for complying with 335-14-5-.12(9)(b) in case not all contaminated subsoils can be practicably removed at closure.

2. The cost estimates calculated under 335-14-5-.08(3) and (5) for closure and post-closure care of a pile subject to 335-14-5-.12(9)(c) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under 335-14-5-.12(9)(a).

(10) Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in waste piles that are not enclosed (as defined in 335-14-5-.12(1)(c)) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in 335-14-5-.12(10)(a), and in accord with all other applicable requirements of 335-14-5. The factors to be considered include:

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of the underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Department may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to protect human health and the environment.

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335-14-5-.13 Land Treatment.

(1) Applicability. The requirements of 335-14-5-.13 apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as 335-14-5-.01(1) provides otherwise.

(2) Treatment program.

(a) An owner or operator subject to 335-14-5-.13 must establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The Department will specify in the facility permit the elements of the treatment program, including:

1. The wastes that are capable of being treated at the unit based on a demonstration under 335-14-5-.13(3);

2. Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with 335-14-5-.13(4)(a); and

3. Unsaturated zone monitoring provisions meeting the requirements of 335-14-5-.13(9).

(b) The Department will specify in the facility permit the hazardous constituents that must be degraded, transformed, or immobilized under 335-14-5-.13. Hazardous constituents are constituents identified in 335-14-2 - Appendix VIII that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The Department will specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone must be:

1. No more than 1.5 meters (5 feet) from the initial soil surface; and

2. More than 1 meter (3 feet) above the seasonal high water table.

(3) Treatment demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator must demonstrate, prior to application of the waste, that hazardous constituents in the waste can be completely degraded, transformed or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under 335-14-5-.13(3)(a), he must obtain a treatment or disposal permit under 335-14-8-.06(3). The Department will specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure, and clean-up activities) necessary to meet the requirements in 335-14-5-.13(3)(c).

(c) Any field test or laboratory analysis conducted in order to make a demonstration under 335-14-5-.13(3)(a) must:

1. Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:

(i) The characteristics of the waste (including the presence of 335-14-2 - Appendix VIII constituents);

(ii) The climate in the area;

(iii) The topography of the surrounding area;

(iv) The characteristics of the soil in the treatment zone (including depth); and

(v) The operating practices to be used at the unit.

2. Be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and

3. Be conducted in a manner that protects human health and the environment considering:

(i) The characteristics of the waste to be tested;

(ii) The operating and monitoring measures taken during the course of the test;

(iii)The duration of the test;

(iv) The volume of waste used in the test;

(v) In the case of field tests, the potential for migration of hazardous constituents to groundwater or surface water.

(4) Design and operating requirements. The Department will specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with 335-14-5-.13(4).

(a) The owner or operator must design, construct, operate and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator must design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under 335-14-5-.13(3). At a minimum, the Department will specify the following in the facility permit:

1. The rate and method of waste application to the treatment zone;

2. Measures to control soil pH;

3. Measures to enhance microbial or chemical reactions (e.g., fertilization, tilling); and

4. Measures to control the moisture content of the treatment zone.

(b) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

(g) The owner or operator must inspect, and document the inspections in accordance with 335-14-5-.02(6)(d), the unit weekly and after storms to detect evidence of:

1. Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

2. Improper functioning of wind dispersal control measures.

(5) **[Reserved].**

(6) **[Reserved].**

(7) Food-chain crops. The Department may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of 335-14-5-.13(7). The Department will specify in the facility permit the specific food-chain crops which may be grown.

(a)1. The owner or operator must demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that hazardous constituents other than cadmium:

(i) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals (e.g., by grazing); or

(ii) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

2. The owner or operator must make the demonstration required under 335-14-5-.13(7)(a) prior to the planting of crops at the facility for all constituents identified in 335-14-2 - Appendix VIII that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

3. In making a demonstration under 335-14-5-.13(7)(a), the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and must:

(i) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (e.g., pH, cation exchange capacity), specific wastes, application rates, application methods and crops to be grown; and

(ii) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

4. If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under 335-14-5-.13(7)(a), he must obtain a permit for conducting such activities.

(b) The owner or operator must comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

1.(i) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste must not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food-chain crops, the annual cadmium application rate must not exceed:

Time Period	Annual Cd Application Rate (kilograms per hectare)
Present to June 30, 1984	**2.0**
July 1, 1984 to December 31, 1986	**1.25**
Beginning January l, 1987	**0.5**

(iii) The cumulative application of cadmium from waste must not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(iv) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/lOOg; 10 kg/ha if soil CEC is 5-15 meq/lOOg; and 20 kg/ha if soil CEC is greater than 15 meq/lOOg; or

2.(i) Animal feed must be the only food-chain crop produced;

(ii) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food-chain crops are grown;

(iii) There must be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(iv) Future property owners must be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food-chain crops must not be grown except in compliance with 335-14-5-.13(7)(b)2.

(8) **[Reserved].**

(9) Unsaturated zone monitoring. An owner or operator subject to 335-14-5-.13 must establish an unsaturated zone monitoring program to discharge the following responsibilities:

(a) The owner or operator must monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

1. The Department will specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under 335-14-5-.13(2)(b).

2. The Department may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents specified under 335-14-5-.13(2)(b). PHCs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Department will establish PHCs if it finds, based on waste analyses, treatment demonstrations or other data, that effective degradation, transformation, or immobilization of the PHCs will assure treatment at least equivalent levels for the other hazardous constituents in the wastes.

(b) The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

1. Represent the quality of back-ground soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

2. Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

(c) The owner or operator must establish a background value for each hazardous constituent to be monitored under 335-14-5-.13(9)(a). The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.

1. Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

2. Background soil-pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

3. The owner or operator must express all background values in a form necessary for the determination of statistically significant increases under 335-14-5-.13(9)(f).

4. In taking samples used in the determination of all background values, the owner or operator must use an unsaturated zone monitoring system that complies with 335-14-5-.13(9)(b)1.

(d) The owner or operator must conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The Department will specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application and the soil permeability. The owner or operator must express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under 335-14-5-.13(9)(f).

(e) The owner or operator must use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator must implement procedures and techniques for:

1. Sample collection;

2. Sample preservation and shipment;

3. Analytical procedures; and

4. Chain of custody control.

(f) The owner or operator must determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under 335-14-5-.13(9)(a) below the treatment zone each time he conducts soil monitoring and soil-pore liquid monitoring under 335-14-5-.13(9)(d).

1. In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent, as determined under 335-14-5-.13(9)(d), to the background value for that constituent according to the statistical procedure specified in the facility permit under 335-14-5-.13.

2. The owner or operator must determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Department will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

3. The owner or operator must determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Department will specify a statistical procedure in the facility permit that it finds:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to 335-14-5-.13(9)(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he must:

1. Notify the Department of this finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases.

2. Within 90 days, submit to the Department an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation or immobilization processes in the treatment zone.

(h) If the owner or operator determines, pursuant to 335-14-5-.13(9)(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis or evaluation. While the owner or operator may make a demonstration under 335-14-5-.13(9)(h) in addition to, or in lieu of, submitting a permit modification application under 335-14-5-.13(9)(g)2., he is not relieved of the requirement to submit a permit modification application within the time specified in 335-14-5-.13(9)(g)2. unless the demonstration made under 335-14-5-.13(9)(h) successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis or evaluation. In making a demonstration under 335-14-5-.13(9)(h), the owner or operator must:

1. Notify the Department in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a determination under 335-14-5-.13(9)(h).

2. Within 90 days, submit a report to the Department demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

3. Within 90 days, submit to the Department an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

4. Continue to monitor in accordance with the unsaturated zone monitoring program established under 335-14-5-.13(9).

(10) Recordkeeping. The owner or operator must include hazardous waste application dates and rates in the operating record required under 335-14-5-.05(4).

(11) Closure and post-closure care.

(a) During the closure period the owner or operator must:

1. Continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under 335-14-5-.13(4)(a), except to the extent such measures are inconsistent with 335-14-5-.13(11)(a)8.

2. Continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under 335-14-5-.13(4)(b);

3. Maintain the run-on control system required under 335-14-5-.13(4)(c);

4. Maintain the run-off management system required under 335-14-5-.13(4)(d);

5. Control wind dispersal of hazardous waste if required under 335-14-5-.13(4)(f),

6. Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under 335-14-5-.13(7);

7. Continue unsaturated zone monitoring in compliance with 335-14-5-.13(9), except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

8. Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with 335-l4-5-.07(6), when closure is completed the owner or operator may submit to the Department certification by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period the owner or operator must:

1. Continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

2. Maintain a vegetative cover over closed portions of the facility;

3. Maintain the run-on control system required under 335-14-5-.13(4)(c);

4. Maintain the run-off management system required under 335-14-5-.13(4)(d);

5. Control wind dispersal of hazardous waste if required under 335-14-5-.13(4)(f);

6. Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under 335-14-5-.13(7); and

7. Continue unsaturated zone monitoring in compliance with 335-14-5-.13(9), except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under 335-14-5-.13(11)(a)8. and (c) if the Department finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in 335-14-5-.13(11)(d)3. The owner or operator may submit such a demonstration to the Department at any time during the closure or post-closure care periods. For the purposes of 335-14-5-.13(11):

1. The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under 335-14-5-.13(2)(b).

(i) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(ii) The owner or operator must express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under 335-14-5-.13(11)(d)3.

2. In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

3. In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provide a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under 335-14-5-.06 if the Department finds that the owner or operator satisfies 335-14-5-.13(11)(d) and if unsaturated zone monitoring under 335-14-5-.13(9) indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

(12) Special requirements for ignitable or reactive waste. The owner or operator must not apply ignitable or reactive waste to the treatment zone unless the waste and the treatment zone meet all applicable requirements of 335-14-9, and:

(a) The waste is immediately incorporated into the soil so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) and (4); and

2. 335-14-5-.02(8)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(13) Special requirements for incompatible wastes. The owner or operator must not place incompatible wastes, or incompatible wastes and materials (see 335-14-5 - Appendix V for examples), in or on the same treatment zone, unless 335-14-5-.02(8)(b) is complied with.

(14) Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Department pursuant to the standards set out in 335-14-5-.13(14)(a), and in accord with all other applicable requirements of 335-14-5. The factors to be considered are:

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design or monitoring techniques.

(b) The Department may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to protect human health and the environment.

Authors: Stephen C. Maurer, Amy P. Zachry, Michael B. Champion
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335-14-5-.14 Landfills.

(1) Applicability. The requirements of 335-14-5-.14 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as 335-14-5-.01(1) provides otherwise.

(2) Design and operating requirements.

(a) Any landfill that is not covered by 335-14-5-.14(2)(b) or 335-14-6-.14(2)(a) must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:

1. A double liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the landfill. The liners must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

2. A leachate collection and removal system immediately above and between the liners that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner at any location does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(i) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(IV) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 must install two or more liners and a leachate collection and removal system above and between such liners. “Construction commences” is as defined in 335-14-1-.02 under “existing facility”.

1.(i) The liner system must include:

(I) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(II) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec.

(ii) The liners must comply with 335-14-5-.14(2)(a)1.(i), (ii), and (iii).

2. The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The Director will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must comply with 335-14-5-.14(2)(b)3.(iii) and (iv).

3. The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in 335-14-5-.14(2)(b) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of $1x10^{-2}$ cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of $3x10^{-5}$ m^2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump(s). The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

4. The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

5. The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak detection system will not be adversely affected by the presence of groundwater.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(d) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(f) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(g) The Department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of 335-14-5-.14(2) are satisfied.

(h) Any permit which is issued after November 8, 1984 for a landfill located within the State of Alabama shall require the installation of two or more liners and a leachate collection system above and between such liners.

(3) Action leakage rate.

(a) The Director shall approve an action leakage rate for landfill units subject to 335-14-5-.14(2)(b). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under 335-14-5-.14(4)(c) to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under 335-14-5-.14(4)(c).

(4) Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of landfills exempt from 335-14-5-.14(2)(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

1. Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, excessive folds, punctures, or blisters; and

2. Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2. Proper functioning of wind dispersal control systems, where present; and

3. The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

[**Note**: These inspections must be documented in accordance with 335-14-5-.02(6)(d).]

(c)1. An owner or operator required to have a leak detection system under 335-14-5-.14(2)(b) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

2. After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

3. "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(5) Response actions.

(a) The owner or operator of landfill units subject to 335-14-5-.14(2)(b) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-5-.14(5)(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedence within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids,

possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-5-.14(5)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-5-.14(5)(b)3., 4., and 5., the owner or operator must:

1.(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(6) **[Reserved].**

(7) **[Reserved].**

(8) **[Reserved].**

(9) **[Reserved].**

(10) Surveying and record keeping. The owner and operator of a landfill must maintain the following items in the operating record required under 335-14-5-.05(4):

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed bench marks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

(11) Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

1. Provide long-term minimization of migration of liquids into and through the closed landfill;

2. Function with minimum maintenance;

3. Promote drainage and minimize erosion or abrasion of the cover;

4. Minimize and accommodate settling and subsidence so that the cover's integrity is maintained; and

5. Have a permeability less than or equal to the permeability of any bottom liner system or natural sub-soils present (whichever is less).

(b) To meet the requirements in 335-14-5-.14(11)(a), the final cover system must contain (as a minimum):

1. A vegetated top cover. The top cover must:

(i) Be at least 24 inches thick;

(ii) Support vegetation that will effectively minimize erosion;

(iii) Have a final top slope between three and five percent; and

(iv) Have a final side slope which does not exceed 25 percent; and

(v) Have a surface drainage system capable of conducting run-off across the cap without erosion occurring.

2. Drainage layer. The drainage layer must:

(i) Be at least 12 inches thick with a saturated hydraulic conductivity not less than 10^{-3} cm/sec;

(ii) Have a final bottom slope of at least two percent;

(iii) Be overlain by a graded granular or synthetic fabric filter to prevent clogging;

(iv) Be designed so that discharge flows freely in the lateral direction to minimize the head on the low permeability layer.

3. Low permeability layer. The low permeability layer must consist of two components, a synthetic liner and a compacted soil liner.

(i) The synthetic liner component must:

(I) Consist of at least a 20 mil synthetic membrane;

(II) Be protected from damage above the membrane by at least six inches of bedding material;

(III) Have a final upper slope of at least two percent;

(IV) Be located wholly below the average frost penetration;

(V) Lay directly on the compacted soil liner;

(ii) The compacted soil component must:

(I) Have 24 inches of soil recompacted to a saturated hydraulic conductivity of not more than 10-7 cm/sec:

(II) Have the soil emplaced in lifts not exceeding six inches before compaction to maximize the effectiveness of compaction.

(c) If the owner or operator can demonstrate to the satisfaction of the Department that an alternative cover system meets or exceeds the performance standards set forth in 335-14-5-.14(11)(a) and (b), the alternative final cover system may be used.

(d) After final closure, the owner or operator must comply with all post-closure requirements contained in 335-14-5-.07(8) through (11), including maintenance and monitoring throughout the post-closure care period (specified in the permit under 335-14-5-.07(8)). The owner or operator must:

1. Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

2. Continue to operate the leachate collection and removal systems until leachate is no longer detected;

3. Maintain and monitor the leak detection system in accordance with 335-14-5-.14(2)(b)3.(iv) and (2)(b)4. and 335-14-5-.14(4)(c), and comply with all other applicable leak detection system requirements of 335-14-5-.14;

4. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of 335-14-5-.06;

5. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

6. Protect and maintain surveyed bench marks used in complying with 335-14-5-.14(10); and

7. The owner or operator must visually inspect the final cover to identify evidence of settling, subsidence, erosion, or other events expected to limit the integrity or effectiveness. These inspections must be documented in an inspection log, as required by 335-14-5-.02(6)(d). The Department will specify in the permit the inspection schedule.

(12) **[Reserved].**

(13) Special requirements for ignitable or reactive waste.

(a) Except as provided in 335-14-5-.14(13)(b), and in 335-14-5-.14(17), ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meet all applicable requirements of Chapter 335-14-9, and:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-5-.02(8)(b) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in 335-14-9-.04, ignitable wastes in containers may be landfilled without meeting the requirements of 335-14-5-.14(13)(a), provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

(14) Special requirements for incompatible wastes. Incompatible wastes or incompatible wastes and materials (see 335-14-5 - Appendix V for examples) must not be placed in the same landfill cell unless 335-14-5-.02(8)(b) is complied with.

(15) Special requirements for bulk and containerized liquids.

(a) **[Reserved].**

(b) The placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in 335-14-1-.02(2).

(d) Containers holding free liquids must not be placed in a landfill unless:

1. All free-standing liquid:

(i) Has been removed by decanting, or other methods;

(ii) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) Has been otherwise eliminated; or

2. The container is very small, such as an ampule; or

3. The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4. The container is a lab pack as defined in 335-14-5-.14(17) and is disposed of in accordance with 335-14-5-.14(17).

(e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in 335-14-5-.14(15)(e)1.; materials that pass one of the tests in 335-14-5-.14(15)(e)2.; or materials that are determined by the Department to be nonbiodegradable through the 335-14-1-.03 petition process.

1. Nonbiodegradable sorbents.

(i) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

(ii) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

2. Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)--Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--Standard Practice for Determining Resistance of Plastics to Bacteria; or

(iii) The sorbent material is determined to be nonbiodegradable under OECD test 301B: [CO_2 Evolution (Modified Sturm Test)].

(f) The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the Department, or the Director determines that:

1. The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain hazardous waste; and

2. Placement in such owner or operator's landfill will not present a risk of contamination of any “underground source of drinking water” (as that term is defined in 335-14-1-.02).

(16) Special requirements for containers. Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

(17) Disposal of small containers of hazardous waste in overpacked drums (lab packs). Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178, and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with 335-14-5-.14(15)(e), to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and sorbent material.

(c) The sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with 335-14-5-.02(8)(b).

(d) Incompatible wastes, as defined in 335-14-1-.02(1), must not be placed in the same outside container.

(e) Reactive wastes, other than cyanide- or sulfur-bearing waste as defined in 335-14-2-.03(4)(a)5., must be treated or rendered non-reactive prior to packaging in accordance with 335-14-5-.14(17)(a) through (d). Cyanide- and sulfide-bearing reactive waste may be packed in accordance with 335-14-5-.14(17)(a) through (d) without first being treated or rendered non-reactive.

(f) Such disposal is in compliance with the requirements of 335-14-9. Persons who incinerate lab packs according to the requirements in 335-14-9-.04(3) may use fiber drums in place of metal outer containers. Such fiber drums must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in 335-14-5-.14(17)(b).

(18) Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in a landfill unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Director pursuant to the standards set out in 335-14-5-.14(18)(a), and in accord with all other applicable requirements of 335-14-5. The factors to be considered are:

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design, or monitoring requirements.

(b) The Department may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to protect human health and the environment.

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335-14-5-.15 Incinerators.

(1) Applicability.

(a) The requirements of 335-14-5-.15 apply to owners and operators of hazardous waste incinerators (as defined in 335-14-1-.02), except as 335-14-5-.01(1) provides otherwise.

(b) Integration of the MACT standards.

1. Except as provided by 335-14-5-.15(1)(b)2., (b)3. and (b)4., the standards of 335-14-5 no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 335-3-11-.06(56) by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under 335-3-11-.06(56) and 40 CFR § 63.1210(d)documenting compliance with the requirements of 335-3-11-.06(56). Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of 335-14-5 will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

2. The MACT standards do not replace the closure requirements of 335-14-5-.15(12) or the applicable requirements of 335-14-5-.01 through 5-.08, 5-.28, and 5-.29.

3. The particulate matter standard of 335-14-5-.15(4)(c) remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 CFR § 63.1206(b)(14) and § 63.1219(e).

4. The following requirements remain in effect for startup, shutdown, and malfunction events if the facility elects to comply with 335-14-8-.15(1)(a)1.(i) to minimize emissions of toxic compounds from these events:

(i) 335-14-5-.15(6)(a) requiring that an incinerator operate in accordance with operating requirements specified in the permit; and

(ii) 335-14-5-.15(6)(c) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(c) After consideration of the waste analysis included with Part B of the permit application, the Department, in establishing the permit conditions, may

exempt the applicant from all requirements of 335-14-5-.15 except 335-14-5-.15(2) (Waste analysis) and 335-14-5-.15(12) (Closure).

1. If the Department finds that the waste to be burned is:

(i) Listed as a hazardous waste in 335-14-2-.04 solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(ii) Listed as a hazardous waste in 335-14-2-.04 solely because it is reactive (Hazard Code R) for characteristics other than those listed in 335-14-2-.03(4)(a)4. and 5., and will not be burned when other hazardous wastes are present in the combustion zone; or

(iii) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under 335-14-2-.03; or

(iv) A hazardous waste solely because it possesses any of the reactivity characteristics described by 335-14-2-.03 (4)(a)1., 2., 3., 6., 7. and 8., and will not be burned when other hazardous wastes are present in the combustion zone; and

2. If the waste analysis shows that the waste contains none of the hazardous constituents listed in 335-14-2 - Appendix VIII, which would reasonably be expected to be in the waste.

(d) If the waste to be burned is one which is described by 335-14-5-.15(1)(c)1.(i), (c)1.(ii), (c)1.(iii), or (c)1.(iv) and contains insignificant concentrations of the hazardous constituents listed in 335-14-2 - Appendix VIII, then the Department may, in establishing permit conditions, exempt the applicant from all requirements of 335-14-5-.15, except 335-14-5-.15(2) (Waste analysis) and 335-14-5-.15(12) (Closure), after consideration of the waste analysis included with Part B of the permit application, unless the Department finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

(e) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of 335-14-8-.06(2) (Short term and incinerator permits).

(2) Waste analysis.

(a) As a portion of the trial burn plan required by 335-14-8-.06(2), or with Part B of the permit application, the owner or operator must have included an analysis of the waste feed sufficient to provide all information required by 335-14-8-.06(2)(b) or 335-14-8-.02(10). Owners or operators of new hazardous waste incinerators must provide the information required by 335-14-8-.06(2)(c) or 335-14-8-.02(10) to the greatest extent possible.

(b) Throughout normal operation the owner or operator must conduct sufficient waste analysis to verify that waste feed to the incinerator is within the

physical and chemical composition limits specified in his permit (under 335-14-5-.15(6)(b)).

(3) Principal organic hazardous constituents (POHCS).

(a) Principal Organic Hazardous Constituents (POHCs) in the waste feed must be treated to the extent required by the performance standard of 335-14-5-.15(4).

1. One or more POHCs will be specified in the facility's permit, from among those constituents listed in of 335-14-2 - Appendix VIII, for each waste feed to be burned. This specification will be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with Part B of the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as POHCs. Constituents are more likely to be designated as POHCs if they are present in large quantities or concentrations in the waste.

2. Trial POHCs will be designated for performance of trial burns in accordance with the procedure specified in 335-14-8-.06(2) for obtaining trial burn permits.

(4) Performance standards. An incinerator burning hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with the operating requirements specified under 335-14-5-.15(6), it will meet the following performance standards:

(a)1. Except as provided in 335-14-5-.15(4)(a)2., an incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under 335-14-5-.15(3)) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE = \frac{(W_{in} - W_{out})}{W_{in}} \times 100\%$$

Where:

W_{in} = Mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator, and

W_{out} = Mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

2. An incinerator burning hazardous wastes F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under 335-14-5-.15(3)) in its permit. This performance must be demonstrated on POHCs that

are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in 335-14-5-.15(4)(a)1.

(b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour (4 pounds per hour) of hydrogen chloride (HC1) must control HC1 emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the HC1 in the stack gas prior to entering any pollution control equipment.

(c) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = P_m \times \frac{14}{21 - Y}$$

Where

P_c is the corrected concentration of particulate matter,

P_m is the measured concentration of particulate matter, and

Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in Part 60, Appendix A (Method 3), of Chapter 1, Environmental Protection Agency, of the Code of Federal Regulations. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Department will select an appropriate correction procedure, to be specified in the facility permit.

(d) For purposes of permit enforcement, compliance with the operating requirements specified in the permit (under 335-14-5-.15(6)) will be regarded as compliance with 335-14-5-.15(4). However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of 335-14-5-.15(4) may be "information" justifying modification, revocation, or reissuance of a permit under 335-14-8-.04(2).

(5) Hazardous waste incinerator permits.

(a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified for those wastes under 335-14-5-.15(6), except:

1. In approved trial burns under 335-14-8-.06(2); or

2. Under exemptions created by 335-14-5-.15(1).

(b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with Part B of a permit application under 335-14-8-.02(10).

(c) The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of 335-14-5-.15, including but not limited to, allowable waste feeds and operating conditions necessary to meet the requirements of 335-14-5-.15(6), sufficient to comply with the following standards:

1. For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in 335-14-5-.15(5)(c)2., not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements must be those likely to ensure compliance with the performance standards of 335-14-5-.15(4), based on the Department's engineering judgment. The Department may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant;

2. For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of 335-14-5-.15(4) and must be in accordance with the approved trial burn plan;

3. For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Department, the operating requirements must be those most likely to ensure compliance with the performance standards of 335-14-5-.15(4), based on the Department's engineering judgment; and

4. For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in 335-14-8-.02(10)(c), as sufficient to ensure compliance with the performance standards of 335-14-5-.15(4).

(6) Operating requirements.

(a) An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in 335-14-5-.15(5)(b) and included with Part B of a facility's permit application) to be sufficient to comply with the performance standards of 335-14-5-.15(4).

(b) Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of

335-14-5-.15(4)) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:

1. Carbon monoxide (CO) level in the stack exhaust gas;

2. Waste feed rate;

3. Combustion temperature;

4. An appropriate indicator of combustion gas velocity;

5. Allowable variations in incinerator system design or operating procedures; and

6. Such other operating requirements as are necessary to ensure that the performance standards of 335-14-5-.15(4) are met.

(c) During start-up and shut-down of an incinerator, hazardous waste (except wastes exempted in accordance with 335-14-5-.15(1)) must not be fed into the incinerator unless the incinerator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the permit.

(d) Fugitive emissions from the combustion zone must be controlled by:

1. Keeping the combustion zone totally sealed against fugitive emissions; or

2. Maintaining a combustion zone pressure lower than atmospheric pressure; or

3. An alternate means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under 335-14-5-.15(6)(a).

(f) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

(7) **[Reserved].**

(8) <u>Monitoring and inspections</u>.

(a) The owner or operator must conduct, as a minimum, the following monitoring while incinerating hazardous waste:

1. Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis.

2. CO must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

3. Upon request by the Department, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the performance standards of 335-14-5-.15(4).

(b) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions, and signs of tampering.

(c) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the Department that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.

(d) This monitoring and inspection data must be recorded and the records must be placed in the operating record required by 335-14-5-.05(4) and maintained in the operating record for five years.

(9) **[Reserved].**

(10) **[Reserved].**

(11) **[Reserved].**

(12) Closure. At closure the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site.

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335-14-5-.16 [Reserved].

335-14-5-.17 [Reserved].

335-14-5-.18 **[Reserved].**

335-14-5-.19 **Special Provisions For Cleanup.**

(1) Applicability of Corrective Action Management Unit (CAMU) Regulations.

(a) Except as provided in 335-14-5-.19(1)(b), CAMUs are subject to the requirements of 335-14-5-.19(3).

(b) CAMUs that were approved before April 22, 2002, or for which substantially complete applications (or equivalents) were submitted to the Department on or before November 20, 2000, are subject to the requirements in 335-14-5-.19(2) for grandfathered CAMUs; CAMU waste, activities, and design will not be subject to the standards in 335-14-5-.19(2), so long as the waste, activities, and design remain within the general scope of the CAMU as approved.

(2) Grandfathered Corrective Action Management Units (CAMU).

(a) To implement remedies under 335-14-5-.06(12), § 22-30-19 et. seq., Code of Alabama 1975 and/or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to 335-14-5-.06(12), the Department may designate an area at the facility as a corrective action management unit under the requirements in 335-14-5-.19(2). "Corrective action management unit (CAMU)" means an area within a facility that is used only for implementing corrective action or cleanup at the facility, pursuant to the requirements of 335-14-5-.19(1), (2), and (3). A CAMU must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1. Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

2. Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

[**Note**: The provisions of 335-14-5-.19(2)(a)1. and (2)(a)2. do not relieve the owner or operator of the requirement to meet other applicable requirements of this or other Divisions of the ADEM Administrative Code or other authorities (i.e., These provisions only exempt the unit from the LDR provisions of Chapter 335-14-9 and the hazardous waste minimum technology design requirements of Chapters 335-14-5 and 335-14-8.)]

(b)1. The Department may designate a regulated unit (as defined in 335-14-5-.06(1) as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under 335-14-5-.07(4) or 335-14-6-.07(4); and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

2. The requirements of 335-14-5-.06, 335-14-5-.07 and 335-14-5-.08 and the unit-specific requirements of Chapters 335-14-5- and 335-14-6 that applied to that regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Department shall designate a CAMU in accordance with the following:

1. The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2. Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3. The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

4. Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

5. The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

6. The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7. The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Department to designate a CAMU in accordance with the criteria of 335-14-5-.19.

(e) The Department shall specify, in the permit or order, requirements for CAMUs to include the following:

1. The areal configuration of the CAMU.

2. Requirements for remediation waste management to include the specification of applicable design, operation and closure requirements.

3. Requirements for groundwater monitoring that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to groundwater that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU.

4. Closure and post-closure requirements.

(i) Closure of corrective action management units shall:

(I) Minimize the need for further maintenance; and

(II) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous waste, hazardous constituents, leachate,contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Department for a given CAMU:

(I) Requirements for excavation, removal, treatment or containment of wastes;

(II) For areas in which wastes will remain after closure of the CAMU, requirements for capping of such areas; and

(III) Requirements for removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under 335-14-5-.19(2)(e), the Department shall consider the following factors:

(I) CAMU characteristics;

(II) Volume of wastes which remain in place after closure;

(III) Potential for releases from the CAMU;

(IV) Physical and chemical characteristics of the waste;

(V) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(V) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) The Department shall document the rationale for designating CAMUs and shall make such documentation available to the public.

(g) Incorporation of a CAMU into an existing permit must be approved by the Department according to the permit modification procedures of 335-14-8-.04(2).

(h) The designation of a CAMU does not change the Department's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(3) Corrective Action Management Units (CAMU).

(a) To implement remedies under 335-14-5-.06(12) or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to 335-14-5-.06(12), the Department may designate an area at the facility as a corrective action management unit under the requirements in 335-14-5-.19. Corrective action management unit means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at the facility. A CAMU must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1. CAMU-eligible waste means:

(i) All solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, that are managed for implementing cleanup. As-generated wastes (either hazardous or non-hazardous) from ongoing industrial operations at a site are not CAMU-eligible wastes.

(ii) Wastes that would otherwise meet the description in 335-14-5-.19(3)(a)1.(i) are not “CAMU-Eligible Wastes” where:

(I) The wastes are hazardous wastes found during cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of cleanup, or the containers or tanks are excavated during the course of cleanup; or

(II) The Department exercises the discretion in 335-14-5-.19(3)(a)2. to prohibit the wastes from management in a CAMU.

(iii) Notwithstanding 335-14-5-.19(3)(a)1.(i), where appropriate, as-generated non-hazardous waste may be placed in a CAMU where such waste is being used to facilitate treatment or the performance of the CAMU.

2. The Department may prohibit, where appropriate, the placement of waste in a CAMU where the Department has or receives information that such wastes have not been managed in compliance with applicable land disposal treatment standards of 335-14-9, or applicable unit design requirements of this part, or applicable unit design requirements of 335-14-6, or that non-compliance with other applicable requirements of this chapter likely contributed to the release of the waste.

3. Prohibition against placing liquids in CAMUs.

(i) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not sorbents have been added) in any CAMU is prohibited except where placement of such wastes facilitates the remedy selected for the waste.

(i) The requirements in 335-14-5-.14(15)(d) for placement of containers holding free liquids in landfills apply to placement in a CAMU except where placement facilitates the remedy selected for the waste.

(iii) The placement of any liquid which is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to 335-14-5-.14(15)(f).

(iv) The absence or presence of free liquids in either a containerized or a bulk waste must be determined in accordance with 335-14-5-.14(15)(c). Sorbents used to treat free liquids in CAMUs must meet the requirements of 335-14-5-.14(15)(e).

4. Placement of CAMU-eligible wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

5. Consolidation or placement of CAMU-eligible wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)1. The Department may designate a regulated unit (as defined in 335-14-5-.06(1)(a)2.) as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under 335-14-5-.07(4) or 335-14-6-.07(4); and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

2. 335-14-5-.06, 5-.07, and 5-.08 or 335-14-6-.06, 6-.07, and 6-.08 and the unit-specific requirements of 335-14-5 or 335-14-6 that applied to the

regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Department shall designate a CAMU that will be used for storage and/or treatment only in accordance with 335-14-5-.19(3)(f). The Department shall designate all other CAMUs in accordance with the following:

1. The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2. Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3. The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing CAMU-eligible waste is more protective than management of such wastes at contaminated areas of the facility;

4. Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

5. The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

6. The CAMU shall enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7. The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Department to designate a CAMU in accordance with the criteria in 335-14-5-.19. This must include, unless not reasonably available, information on:

1. The origin of the waste and how it was subsequently managed (including a description of the timing and circumstances surrounding the disposal and/or release);

2. Whether the waste was listed or identified as hazardous at the time of disposal and/or release; and

3. Whether the disposal and/or release of the waste occurred before or after the land disposal requirements of 335-14-9 were in effect for the waste listing or characteristic.

(e) The Department shall specify, in the permit or order, requirements for CAMUs to include the following:

1. The areal configuration of the CAMU.

2. Except as provided in 335-14-5-.19(3)(g), requirements for CAMU-eligible waste management to include the specification of applicable design, operation, treatment and closure requirements.

3. Minimum design requirements. CAMUs, except as provided in 335-14-5-.19(3)(f), into which wastes are placed must be designed in accordance with the following:

(i) Unless the Department approves alternate requirements under 335-14-5-.19(3)(e)3.(ii), CAMUs that consist of new, replacement, or laterally expanded units must include a composite liner and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner. For purposes of 335-14-5-.19, composite liner means a system consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec. FML components consisting of high density polyethylene (HDPE) must be at least 60 mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component;

(ii) Alternate requirements. The Department may approve alternate requirements if:

(I) The Department finds that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as the liner and leachate collection systems in 335-14-5-.19(3)(e)3.(i); or

(II) The CAMU is to be established in an area with existing significant levels of contamination, and the Department finds that an alternative design, including a design that does not include a liner, would prevent migration from the unit that would exceed long-term remedial goals.

4. Minimum treatment requirements: Unless the wastes will be placed in a CAMU for storage and/or treatment only in accordance with 335-14-5-.19(3)(f), CAMU-eligible wastes that, absent 335-14-5-.19, would be subject to the treatment requirements of 335-14-9, and that the Department determines contain principal hazardous constituents must be treated to the standards specified in 335-14-5-.19(3)(e)4.(iii).

(i) Principal hazardous constituents are those constituents that the Department determines to pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(I) In general, the Department will designate as principal hazardous constituents:

I. Carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}; and

II. Non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.

(II) The Department will also designate constituents as principal hazardous constituents, where appropriate, when risks to human health and the environment posed by the potential migration of constituents in wastes to ground water are substantially higher than cleanup levels or goals at the site; when making such a designation, the Department may consider such factors as constituent concentrations, and fate and transport characteristics under site conditions.

(III) The Department may also designate other constituents as principal hazardous constituents that the Department determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(ii) In determining which constituents are ``principal hazardous constituents,'' the Department must consider all constituents which, absent 335-14-5-.19, would be subject to the treatment requirements in 335-14-9.

(iii) Waste that the Department determines to contain principal hazardous constituents must meet treatment standards determined in accordance with 335-14-5-.19(3)(e)4.(iv) or (e)4.(v).

(iv) Treatment standards for wastes placed in CAMUs.

(I) For non-metals, treatment must achieve 90 percent reduction in total principal hazardous constituent concentrations, except as provided by 335-14-5-.19(3)(e)4.(iv)(III).

(II) For metals, treatment must achieve 90 percent reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by 335-14-5-.19(3)(e)4.(iv)(III).

(III) When treatment of any principal hazardous constituent to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the Universal Treatment Standard is not required. Universal Treatment Standards are identified in 335-14-9.

(IV) For waste exhibiting the hazardous characteristic of ignitability, corrosivity or reactivity, the waste must also be treated to eliminate these characteristics.

(V) For debris, the debris must be treated in accordance with 335-14-9, or by methods or to levels established under 335-14-5-.19(3)(e)4.(iv)(I)

through (IV) or 335-14-5-.19(3)(e)4.(v), whichever the Department determines is appropriate.

(VI) Alternatives to TCLP. For metal bearing wastes for which metals removal treatment is not used, the Department may specify a leaching test other than the TCLP (SW846 Method 1311) to measure treatment effectiveness, provided the Department determines that an alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

(v) Adjusted standards. The Department may adjust the treatment level or method in 335-14-5-.19(3)(e)4.(iv) to a higher or lower level, based on one or more of the following factors, as appropriate. The adjusted level or method must be protective of human health and the environment:

(I) The technical impracticability of treatment to the levels or by the methods in 335-14-5-.19(3)(e)4.(iv);

(II) The levels or methods in 335-14-5-.19(3)(e)4.(iv) would result in concentrations of principal hazardous constituents (PHCs) that are significantly above or below cleanup standards applicable to the site (established either site-specifically, or promulgated under state or federal law);

(III) The views of the affected local community on the treatment levels or methods in 335-14-5-.19(3)(e)4.(iv) as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels;

(IV) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in 335-14-5-.19(3)(e)4.(iv);

(V) The long-term protection offered by the engineering design of the CAMU and related engineering controls:

I. Where the treatment standards in 335-14-5-.19(3)(e)4.(iv) are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility; or

II. Where cost-effective treatment has been used and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at 335-14-5-.14(2)(b); or

III. Where, after review of appropriate treatment technologies, the Department determines that cost-effective treatment is not reasonably available, and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at 335-14-5-.14(2)(b); or

IV. Where cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility; or

V. Where, after review of appropriate treatment technologies, the Department determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the CAMU meets or exceeds the liner standards for new, replacement, or laterally expanded CAMUs in 335-14-5-.19(3)(e)3.(i) and (ii), or the CAMU provides substantially equivalent or greater protection.

(vi) The treatment required by the treatment standards must be completed prior to, or within a reasonable time after, placement in the CAMU.

(vii) For the purpose of determining whether wastes placed in CAMUs have met site-specific treatment standards, the Department may, as appropriate, specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents. This specification will be based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

5. Except as provided in 335-14-5-.19(3)(f), requirements for ground water monitoring and corrective action that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU; and

(iii) Require notification to the Department and corrective action as necessary to protect human health and the environment for releases to ground water from the CAMU.

6. Except as provided in 335-14-5-.19(3)(f), closure and post-closure requirements:

(i) Closure of corrective action management units shall:

(I) Minimize the need for further maintenance; and

(II) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Department for a given CAMU:

(I) Requirements for excavation, removal, treatment or containment of wastes; and

(II) Requirements for removal and decontamination of equipment, devices, and structures used in CAMU-eligible waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under 335-14-5-.19(3)(e), the Department shall consider the following factors:

(I) CAMU characteristics;

(II) Volume of wastes which remain in place after closure;

(III) Potential for releases from the CAMU;

(IV) Physical and chemical characteristics of the waste;

(V) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(VI) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Cap requirements:

(I) At final closure of the CAMU, for areas in which wastes will remain after closure of the CAMU, with constituent concentrations at or above remedial levels or goals applicable to the site, the owner or operator must cover the CAMU with a final cover designed and constructed to meet the following performance criteria, except as provided in 335-14-5-.19(3)(e)6.(iv)(II):

I. Provide long-term minimization of migration of liquids through the closed unit;

II. Function with minimum maintenance;

III. Promote drainage and minimize erosion or abrasion of the cover;

IV. Accommodate settling and subsidence so that the cover's integrity is maintained; and

V. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(II) The Department may determine that modifications to 335-14-5-.19(3)(e)6.(iv)(I) are needed to facilitate treatment or the performance of the CAMU (e.g., to promote biodegradation).

(v) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities

shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) CAMUs used for storage and/or treatment only are CAMUs in which wastes will not remain after closure. Such CAMUs must be designated in accordance with all of the requirements of 335-14-5-.19, except as follows.

1. CAMUs that are used for storage and/or treatment only and that operate in accordance with the time limits established in the staging pile regulations at 335-14-5-.19(5)(d)1.(iii), (h), and (i) are subject to the requirements for staging piles at 335-14-5-.19(5)(d)1.(i) and (ii), 335-14-5-.19(5)(d)2., 335-14-5-.19(5)(e) and (f), and 335-14-5-.19(5)(j) and (k) in lieu of the performance standards and requirements for CAMUs at 335-14-5-.19(3)(c) and (e)3. through 6.

2. CAMUs that are used for storage and/or treatment only and that do not operate in accordance with the time limits established in the staging pile regulations at 335-14-5-.19(5)(d)1.(iii), (h), and (i):

(i) Must operate in accordance with a time limit, established by the Department, that is no longer than necessary to achieve a timely remedy selected for the waste, and

(ii) Are subject to the requirements for staging piles at 335-14-5-.19(5)(d)(1)(i) and (ii), 335-14-5-.19(5)(d)2., 335-14-5-.19(5)(e) and (f), and 335-14-5-.19(5)(j) and (k) in lieu of the performance standards and requirements for CAMUs at 335-14-5-.19(3)(c) and 335-14-5-.19(3)(e)4. and 6.

(g) CAMUs into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site do not have to comply with the requirements for liners at 335-14-5-.19(3)(e)3.(i), caps at 335-14-5-.19(3)(e)6.(iv), ground water monitoring requirements at 335-14-5-.19(3)(e)5. or, for treatment and/or storage-only CAMUs, the design standards at 335-14-5-.19(3)(f).

(h) The Department shall provide public notice and a reasonable opportunity for public comment before designating a CAMU. Such notice shall include the rationale for any proposed adjustments under 335-14-5-.19(3)(e)4.(v) to the treatment standards in 335-14-5-.19(3)(e)4.(iv).

(i) Notwithstanding any other provision of 335-14-5-.19, the Department may impose additional requirements as necessary to protect human health and the environment.

(j) Incorporation of a CAMU into an existing permit must be approved by the Department according to the procedures for permit modifications under 335-14-8-.04(2).

(k) The designation of a CAMU does not change ADEM's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(4) Temporary Units (TU).

(a) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required under 335-14-5-.06(12), §22-30-19 et. seq., Code of Alabama 1975 and/or RCRA Section 3008(h), or at a permitted facility that is not subject to 335-14-5-.06(12), the Department may designate a unit at the facility as a temporary unit. A temporary unit must by located within the contiguous property under the control of the owner/operator where the wastes to be managed in the temporary unit originated. For temporary units, the Department may replace the design, operating, or closure standard applicable to these units under 335-14-5 or 335-14-6 with alternative requirements which protect human health and the environment.

(b) Any temporary unit to which alternative requirements are applied in accordance with 335-14-5-.19(2)(a) shall be:

1. Located within the facility boundary; and

2. Used only for treatment or storage of remediation wastes.

(c) In establishing standards to be applied to a temporary unit, the Department shall consider the following factors:

1. Length of time such unit will be in operation;

2. Type of unit;

3. Volumes of wastes to be managed;

4. Physical and chemical characteristics of the wastes to be managed in the unit;

5. Potential for releases from the unit;

6. Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases; and

7. Potential for exposure of humans and environmental receptors if releases were to occur from the unit.

(d) The Department shall specify in the permit or order the length of time a temporary unit will be allowed to operate, to be no longer than a period of one year. The Department shall also specify the design, operating, and closure requirements for the unit.

(e) The Department may extend the operational period of a temporary unit once for no longer than a period of one year beyond that originally specified in the permit or order, if the Department determines that:

1. Continued operation of the unit will not pose a threat to human health and the environment; and

2. Continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(f) Incorporation of a temporary unit or a time extension for a temporary unit into an existing permit shall be:

1. Approved in accordance with the procedures for State of Alabama-initiated permit modifications under 335-14-8-.04(2); or

2. Requested by the owner/operator as a major modification according to the procedures under Rule 335-14-8-.04(2).

(g) The Department shall document the rationale for designating a temporary unit and for granting time extensions for temporary units and shall make such documentation available to the public.

(5) Staging piles.

(a) A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in 335-14-1-.02) that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by ADEM in accordance with the requirements in 335-14-5-.19.

1. For the purposes of 335-14-5-.19(5), storage includes mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the wastes for subsequent management or treatment.

2. Reserved.

(b) A staging pile may be used to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if following the standards and design criteria ADEM has designated for that staging pile. ADEM must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with 335-14-8-.07(3)(a)5. and (b)5.). ADEM must establish conditions in the permit, closure plan, or order that comply with 335-14-5-.19(3)(d) through (k).

(c) Staging pile designation. When seeking a staging pile designation, the following must be provided:

1. Sufficient and accurate information to enable ADEM to impose standards and design criteria for your staging pile according to 335-14-5-.19(3)(d) through (k);

2. Certification by a qualified professional engineer for technical data, such as design drawings and specifications, and engineering studies, unless ADEM determines, based on information that you provide, that this certification is not necessary to ensure that a staging pile will protect human health and the environment; and

3. Any additional information ADEM determines is necessary to protect human health and the environment.

(d) Staging pile performance criteria. ADEM must establish the standards and design criteria for the staging pile in the permit, closure plan, or order.

1. The standards and design criteria must comply with the following:

(i) The staging pile must facilitate a reliable, effective and protective remedy;

(ii) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate); and

(iii) The staging pile must not operate for more than two years, except when ADEM grants an operating term extension under 335-14-5-.19(3)(i). The two-year limit, or other operating term specified by ADEM in the permit, closure plan, or order, is measured from the first time remediation waste is placed into a staging pile. Records of the date remediation waste is placed into the staging pile must be maintained for the life of the permit, closure plan, or order, or for three years, whichever is longer.

2. In setting the standards and design criteria, ADEM must consider the following factors:

(i) Length of time the pile will be in operation;

(ii) Volumes of wastes intended to be stored in the pile;

(iii) Physical and chemical characteristics of the wastes to be stored in the unit;

(iv) Potential for releases from the unit;

(v) Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

(vi) Potential for human and environmental exposure to potential releases from the unit;

(e) Receipt of ignitable or reactive remediation waste in a staging pile. Ignitable or reactive remediation waste must not be placed in a staging pile unless:

1. Remediation waste must be treated, rendered or mixed before being placed it in the staging pile so that:

(i) The remediation waste no longer meets the definition of ignitable or reactive under 335-14-2-.03(2) or 335-14-2-.03(4); and

(ii) The owner or operator has complied with 335-14-5-.02(8)(b); or

2. The remediation waste must be managed to protect it from exposure to any material or condition that may cause it to ignite or react.

(f) Handling incompatible remediation wastes in a staging pile. The term "incompatible waste" is defined in 335-14-1-.02. The owner or operator must comply with the following requirements for incompatible wastes in staging piles:

1. Incompatible remediation wastes must not be placed in the same staging pile unless compliance with 335-14-5-.02(8)(b) has occurred;

2. If remediation waste in a staging pile is incompatible with any waste or material stored nearby in containers, other piles, open tanks or land disposal units (for example, surface impoundments), you must separate the incompatible materials, or protect them from one another by using a dike, berm, wall or other device; and

3. Remediation waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to comply with 335-14-5-.02(8)(b).

(g) Staging piles are subject to Land Disposal Restrictions (LDR) and Minimum Technological Requirements (MTR). Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o).

(h) Length of staging pile operation. ADEM may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. A staging pile may be used no longer than the length of time designated by ADEM in the permit, closure plan, or order (the "operating term"), except as provided in 335-14-5-.19(5)(i).

(i) Operating extension for a staging pile

1. ADEM may grant one operating term extension of up to 180 days beyond the operating term limit contained in the permit, closure plan, or order (see 335-14-5-.19(5)(l) for modification procedures). To justify to ADEM the need for an extension, sufficient and accurate information must be provided to enable ADEM to determine that continued operation of the staging pile:

(i) Will not pose a threat to human health and the environment; and

(ii) Is necessary to ensure timely and efficient implementation of remedial actions at the facility.

2. ADEM may, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure protection of human health and the environment.

(j) Closure requirement for a staging pile located in a previously contaminated area

1. Within 180 days after the operating term of the staging pile expires, a staging pile located in a previously contaminated area of the site must be closed by removing or decontaminating all:

(i) Remediation waste;

(ii) Contaminated containment system components; and

(iii) Structures and equipment contaminated with waste and leachate.

2. Contaminated subsoils must be decontaminated in a manner and according to a schedule that ADEM determines will protect human health and the environment.

3. ADEM must include the above requirements in the permit, closure plan, or order in which the staging pile is designated.

(k) Closure requirement for a staging piles located in an uncontaminated area.

1. Within 180 days after the operating term of the staging pile expires, you must close a staging pile located in an uncontaminated area of the site according to 335-14-5-.12(9)(a) and 335-14-5-.07(2); or according to 335-14-6-.12(9)(a) and 335-14-6-.07(2).

2. ADEM must include the above requirement in the permit, closure plan, or order in which the staging pile is designated.

(l) Modifying an existing permit, closure plan, or order to allow for use of a staging pile.

1. To modify a permit, to incorporate a staging pile or staging pile operating term extension, either:

(i) ADEM must approve the modification under the procedures for ADEM-initiated permit modifications in 335-14-8-.04(2); or

(ii) Request a major modification under 335-14-8-.04(2).

2. **[Reserved].**

3. To modify a closure plan to incorporate a staging pile or staging pile operating term extension, the owner or operator must follow the applicable requirements under 335-14-5-.07(3)(c) or 335-14-6-.07(3)(c).

4. To modify an order to incorporate a staging pile or staging pile operating term extension, the owner or operator must follow the terms of the order and the applicable provisions of 335-14-8-.07(3)(a)5. or (b)5.

(m) Public information. ADEM must document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.

(6) Disposal of CAMU-eligible wastes in permitted hazardous waste landfills.

(a) The Department with regulatory oversight at the location where the cleanup is taking place may approve placement of CAMU-eligible wastes in hazardous waste landfills not located at the site from which the waste originated, without the wastes meeting the requirements of 335-14-9, if the conditions in 335-14-5-.19(6)(a)1. through 3. are met:

1. The waste meets the definition of CAMU-eligible waste in 335-14-5-.19(3)(a)1. and 2.

2. The Department with regulatory oversight at the location where the cleanup is taking place identifies principal hazardous constitutes in such waste, in accordance with 335-14-5-.19(3)(e)4.(i) and (ii), and requires that such principal hazardous constituents are treated to any of the following standards specified for CAMU-eligible wastes:

(i) The treatment standards under 335-14-5-.19(3)(e)4.(iv); or

(ii) Treatment standards adjusted in accordance with 335-14-5-.19(3)(e)4.(v)(I), (III), (IV) or (V)I.; or

(iii) Treatment standards adjusted in accordance with 335-14-5-.19(3)(e)4.(v)(V)II., where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

3. The landfill receiving the CAMU-eligible waste must have a RCRA hazardous waste permit, meet the requirements for new landfills in 335-14-5-.14, and be authorized to accept CAMU-eligible wastes; for the purposes of this requirement, “permit” does not include interim status.

(b) The person seeking approval shall provide sufficient information to enable the Department with regulatory oversight at the location where the cleanup is

taking place to approve placement of CAMU-eligible waste in accordance with 335-14-5-.19(6)(a). Information required by 335-14-5-.19(3)(d)1. through 3. for CAMU applications must be provided, unless not reasonably available.

(c) The Department with regulatory oversight at the location where the cleanup is taking place shall provide public notice and a reasonable opportunity for public comment before approving CAMU eligible waste for placement in an off-site permitted hazardous waste landfill, consistent with the requirements for CAMU approval at 335-14-5-.19(3)(h). The approval must be specific to a single remediation.

(d) Applicable hazardous waste management requirements in this part, including recordkeeping requirements to demonstrate compliance with treatment standards approved under 335-14-5-.19, for CAMU-eligible waste must be incorporated into the receiving facility permit through permit issuance or a permit modification, providing notice and an opportunity for comment and a hearing. Notwithstanding 335-14-8-.01(4)(a), a landfill may not receive hazardous CAMU-eligible waste under 335-14-5-.19 unless its permit specifically authorizes receipt of such waste.

(e) For each remediation, CAMU-eligible waste may not be placed in an off-site landfill authorized to receive CAMU-eligible waste in accordance with 335-14-5-.19(6)(d) until the following additional conditions have been met:

1. The landfill owner/operator notifies the Department responsible for oversight of the landfill and persons on the facility mailing list, maintained in accordance with 335-14-8-.08(6)(c)1.(ix), of his or her intent to receive CAMU-eligible waste in accordance with 335-14-5-.19; the notice must identify the source of the remediation waste, the principal hazardous constituents in the waste, and treatment requirements.

2. Persons on the facility mailing list may provide comments, including objections to the receipt of the CAMU-eligible waste, to the Department within 15 days of notification.

3. The Department may object to the placement of the CAMU-eligible waste in the landfill within 30 days of notification; the Department may extend the review period an additional 30 days because of public concerns or insufficient information.

4. CAMU-eligible wastes may not be placed in the landfill until the Department has notified the facility owner/operator that he or she does not object to its placement.

5. If the Department objects to the placement or does not notify the facility owner/operator that he or she has chosen not to object, the facility may not receive the waste, notwithstanding 335-14-8-.01(4)(a), until the objection has been resolved, or the owner/operator obtains a permit modification in accordance with the procedures of 335-14-8-.04(2) specifically authorizing receipt of the waste.

6. As part of the permit issuance or permit modification process of 335-14-5-.19(6)(d), the Department may modify, reduce, or eliminate the notification requirements of this paragraph as they apply to specific categories of CAMU-eligible waste, based on minimal risk.

(f) Generators of CAMU-eligible wastes sent off-site to a hazardous waste landfill under 335-14-5-.19 must comply with the requirements of 335-14-9-.01(7); off-site facilities treating CAMU-eligible wastes to comply with 335-14-5-.19 must comply with the requirements of 335-14-9-.01(7), except that the certification must be with respect to the treatment requirements of 335-14-5-.19(6)(a)2.

(g) For the purposes of 335-14-5-.19 only, the "design of the CAMU" in 335-14-5-.19(3)(e)4.(v)(V) means design of the permitted Subtitle C landfill.

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335-14-5-.20 [Reserved].

335-14-5-.21 [Reserved].

335-14-5-.22 [Reserved].

335-14-5-.23 Drip Pads.

(1) Applicability.

(a) The requirements of 335-14-5-.23 apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-off to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads. The requirement of 335-14-5-.23(4)(b)3. to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992, except for those constructed after December 24, 1992 for which the owner or operator has a

design and has entered into binding financial or other agreements for construction prior to December 24, 1992.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under 335-14-5-.23 (4)(e) or (f), as appropriate.

(c) The requirements of 335-14-5-.23 are not applicable to the management of infrequent and incidental drippage in storage yards provided that:

1. The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of such infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:

(i) Clean up the drippage;

(ii) Document the cleanup of the drippage;

(iii) Retain documents regarding cleanup for three years; and

(iv) Manage the contaminated media in a manner consistent with State of Alabama regulations.

(2) Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in 335-14-5-.23(1), the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of 335-14-5-.23, except the requirements for liners and leak detection systems of 335-14-5-.23(4)(b). No later than the effective date of 335-14-5-.23, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of 335-14-5-.23(4) are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of 335-14-5-.23(4), except the standards for liners and leak detection systems, specified in 335-14-5-.23(4)(b).

(b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of 335-14-5-.23(4)(b) and submit the plan to the Director no later than two years before the date that all repairs, upgrades, and modifications are complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of 335-14-5-.23(4). The plan must be reviewed and certified by a qualified professional engineer.

(c) Upon completion of all upgrades, repairs and modifications, the owner or operator must submit to the Director, the as-built drawings for the drip pad

together with a certification by a qualified professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of 335-14-5-.23(4)(m) or close the drip pad in accordance with 335-14-5-.23(6).

(3) Design and installation of new drip pads. Owners and operators of new drip pads must ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) All of the requirements of 335-14-5-.23(4) (except (4)(a)4.), (5), and (6), or

(b) All of the requirements of 335-14-5-.23(4) (except (4)(b)), (5), and (6).

(4) Design and Operating requirements.

(a) Drip pads must:

1. Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

2. Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

3. Have a curb or berm around the perimeter;

4.(i) Have a hydraulic conductivity of less than or equal to $1X10^{-7}$ cm/sec, e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1 X 10-7 cm/sec such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with 335-14-5-.23(3)(b).

(ii) The owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and recertified annually. The evaluation must document the extent to which the drip pad meets the design and operating standards of 335-14-5-.23(4), except for 335-14-5-.23(4)(b).

5. Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of daily operations; e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

Note: ADEM will generally consider applicable standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) or the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of 335-14-5-23-.(4).

(b) If an owner/operator elects to comply with 335-14-5-.23(3)(a) instead of 335-14-5-.23(3)(b), the drip pad must have:

1. A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

2. A leakage detection system immediately above the liner that is designed, constructed, maintained, and operated to detect leakage from the drip pad. The leakage detection system must be:

(i) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(III) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad;

(ii) Designed and operated to function without clogging through the scheduled closure of the drip pad; and

(iii) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

3. A leakage collection system immediately above the liner that is designed, constructed, maintained and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed must be documented in the operating log.

(c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note: See 335-14-5-.23(4)(m) for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in 335-14-5-.23(l)(b), the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-off that might enter the system.

(f) Unless protected by a structure or cover, as described in 335-14-5-.23(1)(b), the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad must be evaluated to determine that it meets the requirements of 335-14-5-.23(4)(a) through (f), and the owner or operator must obtain a statement from a qualified professional engineer certifying that the drip pad design meets the requirements of 335-14-5-.23(4).

(h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface must be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log. The owner/operator must determine if the residues are hazardous as per 335-14-3-.01(2) and, if so, must manage them under Chapters 335-14-2 through 335-14-9, and Section 3010 of RCRA.

(j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

1. Upon detection of a condition that may have caused or has caused a release of hazardous waste (e.g. upon detection of leakage in the leak detection system), the owner or operator must:

(i) Enter a record of the discovery in the facility operating log;

(ii) Immediately remove the portion of the drip pad affected by the condition from service;

(iii) Determine what steps must be taken to repair the drip pad and clean up any leakage from below the drip pad, and establish a schedule for accomplishing the repairs;

(iv) Within 24 hours after discovery of the condition, notify the Director of the condition and within 10 working days, provide written notice to the Director with a description of the steps that will be taken to repair the drip pad and clean up any leakage and the schedule for accomplishing this work.

2. The Director will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

3. Upon completing all repairs and cleanup, the owner or operator must notify the Director in writing and provide a certification, signed by an independent, qualified registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with 335-14-5-.23(4)(m)1.(iv).

(n) Should a permit be necessary, the Director will specify in the permit all design and operating practices that are necessary to ensure that the requirements of 335-14-5-.23(4) are satisfied.

(o) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

(5) Inspections.

(a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of 335-14-5-.23(4) by a qualified professional engineer. The certification must be maintained at the facility as part of the facility operating record. After installation, liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2. The presence of leakage in and proper functioning of leak detection system;

3. Deterioration or cracking of the drip pad surface.

Note: See 335-14-5-.23(4)(m) for remedial action required if deterioration or leakage is detected.

(c) For inspections performed pursuant to 335-14-5-.23(5)(b), the owner or operator must record inspections in an inspection log or summary and keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(6) Closure.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contamination components, subsoils, structures, and equipment as required in 335-14-5-.23(6)(a), the owner or operator finds that not all contaminated subsoils can be practically removed or decontaminated, he must close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (335-14-5-.14(11)). For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purposes of closure, post-closure, and financial responsibility, such a drip pad is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in 335-14-5-.07 and 335-14-5-.08.

(c)1. The owner or operator of an existing drip pad, as defined in 335-14-5-.23(1), that does not comply with the liner requirements of 335-14-5-.23(4)(b)1. must:

(i) Include in the closure plan for the drip pad under 335-14-5-.07(3) both a plan for complying with 335-14-5-.23(6)(a) and a contingent plan for complying with 335-14-5-.23(6)(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under 335-14-5-.07(9) for complying with 335-14-5-.23(6)(b) in case not all contaminated subsoils can be practicably removed at closure.

2. The cost estimates calculated under 335-14-5-.07(3) and 335-14-5-.08(5) for closure and post-closure care of a drip pad subject to 335-14-5-.23(6)(c) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under 335-14-5-.23(6)(a).

Authors: Stephen C. Maurer, C. Edwin Johnston, Michael B. Champion, Theresa A. Maines, Jonah L. Harris; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: January 25, 1992.
Amended: January 1, 1993; January 5, 1995; April 13, 2001; March 15, 2002; April 17, 2003; April 3, 2007; April 3, 2012; March 31, 20171

335-14-5-.24 Miscellaneous Units.

(1) Applicability. The requirements in 335-14-5-.24 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as 335-14-5-.01(1) provides otherwise.

(2) Environmental performance standards. A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate,

design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions shall include those requirements of 335-14-5-.09 through 335-14-5-.15, 335-14-5-.27 through 335-14-5-.29, 335-14-8, and 335-3-11-.06(56) that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the groundwater or subsurface environment, considering:

1. The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

2. The hydrologic and geologic characteristics of the unit and the surrounding area;

3. The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater;

4. The quantity and direction of groundwater flow;

5. The proximity to and withdrawal rates of current and potential groundwater users;

6. The patterns of land use in the region;

7. The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

8. The potential for health risks caused by human exposure to waste constituents; and

9. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(b) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water or wetlands or on the soil surface considering:

1. The volume and physical and chemical characteristics of the waste in the unit;

2. The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

3. The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

4. The patterns of precipitation in the region;

5. The quantity, quality, and direction of groundwater flow;

6. The proximity of the unit to surface waters;

7. The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;

8. The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

9. The patterns of land use in the region;

10. The potential for health risks caused by human exposure to waste constituents; and

11. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

1. The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols, and particulates;

2. The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

3. The operating characteristics of the unit;

4. The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;

5. The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

6. The potential for health risks caused by human exposure to waste constituents; and

7. The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(3) <u>Monitoring, analysis, inspection, response, reporting, and corrective action</u>. Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with 335-14-5-.24(2), 335-14-5-.02(6), 35-14-5-.03(4), 335-14-5-.05(6), (7), (8), and 335-14-5-.06(12) as well

as meet any additional requirements needed to protect human health and the environment as specified in the permit.

(4) Post-closure care. A miscellaneous unit that is a disposal unit must be maintained in a manner that complies with 335-14-5-.24(2) during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or groundwater that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of 335-14-5-.24(2) during post-closure care. The post-closure plan under 335-14-5-.07(9) must specify the procedures that will be used to satisfy this requirement.

Authors: Stephen C. Maurer, Stephen A. Cobb, C. Edwin Johnston
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: August 24, 1989. **Amended:** Filed: February 20, 1998; Effective: March 27, 1998. **Amended:** Filed: March 9, 2001; Effective: April 13, 2001. **Amended:** Filed: February 27, 2007; Effective: April 3, 2007.

335-14-5-.25 Commercial Hazardous Waste Disposal Facilities.

(1) Notification.

(a) A commercial hazardous waste disposal facility located in the State of Alabama may not dispose of any waste unless all of the applicable requirements in 335-14-3-.08 are met.

(b) A commercial hazardous waste disposal facility located in the State of Alabama must maintain, for three (3) years, the notification documents required by 335-14-3-.08 for each waste stream disposed there.

(2) **[Reserved].**

(3) **[Reserved].**

Authors: William K. Mullins II, Robert W. Barr, Nicholas J. Wolf
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: August 24, 1989.
Amended: December 21, 1989; March 8, 1996; March 15, 2002.

335-14-5-.26 [Reserved].

335-14-5-.27 Subpart AA - Air Emission Standards For Process Vents.

(a) The Environmental Protection Agency Regulations set forth in 40 CFR, Part 264, Subpart AA (as published by EPA on June 21, 1990, and amended on April 26, 1991; December 6, 1994; February 9, 1996; November 25, 1996; June 13,1997; October 8, 1997; December 8, 1997; January 21, 1999; June 14, 2005; and July 14, 2006), are incorporated herein by reference.

(b) In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 264, Subpart AA, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code Rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern. Any provision of 40 CFR Part 264, Subpart AA, which is inconsistent with the provisions of ADEM Administrative Code, Division 335-14, is not incorporated herein by reference.

(c) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Blvd, Montgomery, Alabama 36110.

Authors: Stephen C. Maurer, C. Edwin Johnston, Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: January 25, 1992;
Amended: January 1, 1993; January 5, 1995; January 12, 1996; Mach 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-5-.28 Subpart BB - Air Emission Standards For Equipment Leaks.

(a) The Environmental Protection Agency Regulations, set forth in 40 CFR, Part 264, Subpart BB (as published by EPA on June 21, 1990, and amended on April 26, 1991; November 25, 1996; June 13, 1997; October 8, 1997; December 8, 1997; April 26, 2004; June 14, 2005; April 4, 2006; and July 14, 2006), are incorporated herein by reference.

(b) In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 264, Subpart BB, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code Rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern. Any provision of 40 CFR Part 264, Subpart BB, which is inconsistent with the provisions of ADEM Administrative Code, Division 335-14, is not incorporated herein by reference.

(c) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Authors: Stephen C. Maurer, C. Edwin Johnston, Bradley N. Curvin; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: January 25, 1992.
Amended: January 1, 1993; January 5, 1995; January 12, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 31, 2005; April 4, 2006, March 31, 2017.

335-14-5-.29 Subpart CC - Air Emission Standards For Tanks, Surface Impoundments, And Containers.

(a) The Environmental Protection Agency Regulations, set forth in 40 CFR, Part 264, Subpart CC (as published by EPA on December 6, 1994 and as amended on May 19, 1995; September 29, 1995; November 13, 1995; June 5, 1996; November 25, 1996; October 8, 1997; December 8, 1997; March 6, 1998; April 22, 1998; September 15, 1998; October 7, 1998; January 21, 1999; July 14, 2006, and January 3, 2018), are incorporated herein by reference.

(b) In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 264, Subpart CC, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code Rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern. Any provision of 40 CFR Part 264, Subpart CC, which is inconsistent with the provisions of ADEM Administrative Code, Division 335-14, is not incorporated herein by reference.

(c) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Authors: C. Edwin Johnston, Bradley N. Curvin; Vernon H. Crockett
Statutory Authority: Code of Alabama 1975, §§22-30-11 and 22-30-16.
History: March 27, 1998. **Amended:** Effective: April 2, 1999; **Amended:** Effective: March 31, 2000; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: March 31, 2017; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-5-.30 Containment Buildings.

(1) Applicability. The requirements of 335-14-5-.30 apply to owners or operators who store or treat hazardous waste in units designed and operated under 335-14-5-.30(2). The owner or operator is not subject to the definition of land disposal in RCRA § 3004(K) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

1. A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

2. A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier, and

3. A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under 335-14-5-.30(2).

(d) Has controls sufficient to prevent fugitive dust emissions to meet the no visible emission standard in 335-14-5-.30(2)(c)1.(iv); and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

(2) Design and operating standards.

(a) All containment buildings must comply with the following design standards:

1. The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

2. The floor and containment walls of the unit, including the secondary containment system if required under 335-14-5-.30(2)(b), must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The Department will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of 335-14-5-.30(2). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under 335-14-5-.30(2)(c)1.(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

3. Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4. A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

1. A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

2. A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier must be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

3. A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(I) Constructed with a bottom slope of 1 percent or more; and

(II) Constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of $3 \times 10^{-5} m^2$/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of 335-14-5-.10(4)(e)1. In addition, the containment building must meet the requirements of 335-14-5-.10(4)(b) and 335-14-5-.10(4)(c)1. and 2. to be considered an acceptable secondary containment system for a tank.)

4. For existing units other than 90-day generator units, the Director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of 335-14-5-.30. In making this demonstration, the owner or operator must:

(i) Provide written notice to the Director of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Director on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Director.

(c) Owners or operators of all containment buildings must:

1. Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii)Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR Part 60, Appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated

particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices (see 40 CFR Part 60 Subpart 292 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

2. Obtain and keep on-site a certification by a qualified professional engineer that the containment building design meets the requirements of 335-14-5-.30(2)(a) through (c). A qualified professional engineer certification will be required prior to operation of the unit.

3. Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator must repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

(I) Enter a record of the discovery in the facility operating record;

(II) Immediately remove the portion the containment building affected by the condition from service;

(III) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(IV) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(ii) The Director will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are completed and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator must notify the Director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with 335-14-5-.30(2)(c)3.(i)(IV).

4. Inspect and record in the facility's operating record, at least once every seven weekdays, data gathered from monitoring equipment and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment building that contains both areas with and without secondary containment, the owner or operator must:

1. Design and operate each area in accordance with the requirements enumerated in 335-14-5-.30(2)(a) through (c);

2. Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

3. Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of 335-14-5-.30 the Director may waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(3) Closure and post-closure care.

(a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liner, etc.) contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in 335-14-5-.07 and 335-14-5-.08.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-5-.30(3)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills [335-14-5-.14(11)]. In addition, for the purposes of closure, post-closure and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in 335-14-5-.07 and 335-14-5-.08.

Authors: C. Lynn Garthright; C. Edwin Johnston; Michael B. Champion; Theresa A. Maines; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson.
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: January 5, 1995; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 15, 2002; **Amended:** Effective: April 17, 2003; **Amended:** Effective: April 3, 2007; **Amended:** Effective: March 31, 2017; **Amended:** Filed: February 28, 2020; Effective: April 13, 2020.

335-14-5-.31 Hazardous Waste Munitions And Explosives Storage.

(1) Applicability. The requirements of 335-14-5-.31 apply to owners or operators who store munitions and explosive hazardous wastes, except as 335-14-5-.01(1) provides otherwise.

(**Note:** Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (335-14-5-.30), tanks (335-14-5-.10), or containers (335-14-5-.09). See 335-14-7-.13(6) for storage of waste military munitions).

(2) Design and operating standards.

(a) Hazardous waste munitions and explosives storage units must be designed and operated with containment systems, controls, and monitoring, that:

1. Minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off, to the soil, ground water, surface water, and atmosphere;

2. Provide a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;

3. For wastes stored outdoors, provide that the waste and containers will not be in standing precipitation;

4. For liquid wastes, provide a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area, or vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken (e.g., additional containment, such as overpacking, or removal from the waste area); and

5. Provide monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

(b) Hazardous waste munitions and explosives stored under 335-14-5-.31 may be stored in one of the following:

1. Earth-covered magazines. Earth-covered magazines must be:

(i) Constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

(ii) Designed and constructed:

(I) To be of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

(II) To provide working space for personnel and equipment in the unit; and

(III) To withstand movement activities that occur in the unit; and

(iii) Located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

2. Above-ground magazines. Above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

3. Outdoor or open storage areas. Outdoor or open storage areas must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(c) Hazardous waste munitions and explosives must be stored in accordance with a Standard Operating Procedure specifying procedures to ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of 335-14-5-.02(5), the preparedness and prevention procedures of 335-14-5-.03, and the contingency plan and emergency procedures requirements of 335-14-5-.04, then these procedures will be used to fulfill those requirements.

(d) Hazardous waste munitions and explosives must be packaged to ensure safety in handling and storage.

(e) Hazardous waste munitions and explosives must be inventoried at least annually.

(f) Hazardous waste munitions and explosives and their storage units must be inspected and monitored as necessary to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

(3) Closure and post-closure care.

(a) At closure of a magazine or unit which stored hazardous waste under 335-14-5-.31, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in 335-14-5-.07 and 335-14-5-.08, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-5-.31(3)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he or she must close the facility and perform post-closure care in

accordance with the closure and post-closure requirements that apply to landfills [335-14-5-.14(11)].

Authors: C. Edwin Johnston, Michael B. Champion
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16.
History: March 27, 1998.
Amended: April 13, 2001; April 17, 2003.

335-14-5 APPENDIX I - Recordkeeping Instructions.

(a) The recordkeeping provisions of 335-14-5-.05(4) specify that an owner or operator must keep a written operating record at his facility. 335-14-5 – Appendix I provides additional instructions for keeping portions of the operating record. See 335-14-5-.05(4)(b) for additional recordkeeping requirements.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

(c) Records of each hazardous waste received, treated, stored or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Chapter 335-14-2 which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in 335-14-2-.04, the description also must include the process that produced it (for example, solid filter cake from production of_____ _____, EPA Hazardous Waste Number W051).

Each hazardous waste listed in 335-14-2-.04 and each hazardous waste characteristic defined in 335-14-2-.03, has a four-digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA or Alabama Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1;

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

TABLE 1

Unit of Measure	**Symbol[1]**
Gallons.	G
Gallons Per Hour	E
Gallons Per Day.	U
Liters	L
Liters Per Hour.	H
Liters Per Day	V
Short Tons Per Hour.	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour.	J
Kilograms Per Hour	R
Cubic yards.	Y
Cubic Meters	C
Acres.	B
Acre-feet.	A
Hectares	Q
Hectare-meter.	F
Btu's Per Hour	I
Unit of Measure	**Symbol[1]**
Pounds	P
Short Tons	T
Kilograms	K
Tons	M

[1]Single digit symbols are used here for data processing purposes.

TABLE 2

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage

S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste pile
S04	Surface impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other storage (specify)

2. Treatment

T01	Tank
T02	Surface Impoundment
T03	Incinerator
T04	Other Treatment
T94	Containment Building (Treatment)
T99	Boiler/Industrial Furnace

Note: In addition to coding T01, T02, T03, T04, T94, or T99, record specific handling codes as appropriate below.

(a) Thermal Treatment

T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)

(b) Chemical Treatment

T19	Absorption mound
T20	Absorption field
T21	Chemical fisation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)

(c) Physical Treatment

(1) Separation of Components

T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)

(2) Removal of Specific Components

T48	Absorption-molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis

T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)

(d) Biological Treatment

T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)
T78	**[Reserved].**
T79	**[Reserved].**

(e) Boilers and Industrial Furnaces

T80	Boiler
T81	Cement kiln
T82	Lime kiln
T83	Aggregate kiln
T84	Phosphate kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace
T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92	Halogen Acid Furnaces
T93	Other Industrial Furnaces Listed in 335-14-1-.02

3. Disposal

D79	Underground injection
D80	Landfill
D81	Land treatment
D82	Ocean disposal
D83	Surface impoundment (to be closed as a landfill)
D99	Other (specify)

4. Miscellaneous (Subpart X)

X01	Open Burning/Open Detonation
X02	Mechanical Processing
X03	Thermal Unit
X04	Geologic Repository
X99	Other Subpart X (specify; use appropriate code from 2. (a) through 2. (e), if applicable)

Authors: Stephen C. Maurer, C. Edwin Johnston, Michael B. Champion, Bradley N. Curvin, Theresa A. Maines
Statutory Authority: Code of Alabama 1975, §§22-30-11, 22-30-16, 22-30-18.
History: July 19, 1982.
Amended: August 24, 1989; January 5, 1995; April 13, 2001; April 17, 2003; April 4, 2006; April 3, 2007; March 30, 2010.

335-14-5 APPENDIX II - [Reserved].

335-14-5 APPENDIX III - [Reserved].

335-14-5 APPENDIX IV - Cochran's Approximation To The Behrens-Fisher Students' T-Test. Using all the available background data (N_b readings), calculate the background mean (X_B) and background variance (S_B^2). For the single monitoring well under investigation (N_m reading), calculate the monitoring mean (X_m) and monitoring variance (S_m^2).

For any set of data (X_1, X_2 . . . X_n) the mean is calculated by:

$$\overline{X} = \frac{X_1 + X_2 \ldots + X_n}{n}$$

and the variance is calculated by:

$$s^2 = \frac{\left(X_1 - \overline{X}\right)^2 + \left(X_2 - \overline{X}\right)^2 \ldots + \left(X_n - \overline{X}\right)^2}{n-1}$$

where "n" denotes the number of observations in the set of data.

The t-test uses these data summary measures to calculate a t-statistic (t*) and a comparison t-statistic (t_c). The t* value is compared to the t_c value and a conclusion reached as to whether there has been a statistically significant change in any indicator parameter.

The t-statistic for all parameters except pH and similar monitoring parameters is:

If the value of this t-statistic is negative then there is no significant difference between the monitoring data and background data. It should be noted that significantly small negative values may be indicative of a failure of the assumption made for test validity or errors have been made in collecting the background data.

The t-statistic (t_c), against which t* will be compared, necessitates finding t_B and t_m from standard (one-tailed) tables where,

t_B = t-tables with (n_B - 1) degrees of freedom, at the 0.05 level of significance.

t_m = t-tables with (nm - 1) degrees of freedom, at the 0.05 level of significance.

Finally, the special weightings W_B and W_m are defined as:

$$W_B = \frac{S_B^2}{n_B} \quad \text{and} \quad W_m = \frac{S_m^2}{n_m}$$

and so the comparison t-statistic is:

$$t_c = \frac{W_B t_B + W_m t_m}{W_B + W_m}$$

The t-statistic (t*) is now compared with the comparison t-statistic (t_c) using the following decision-rule:

If t* is equal to or larger than t_c, then conclude that there most likely has been a significant increase in this specific parameter.

If t* is less than t_c, then conclude that most likely there has not been a change in this specific parameter.

The t-statistic for testing pH and similar monitoring parameters is constructed in the same manner as previously described except the negative sign (if any) is discarded and the caveat concerning the negative value is ignored. The standard (two-tailed) tables are used in the construction t_C for pH and similar monitoring parameters.

If t* is equal to or larger than t_C, then conclude that there most likely has been a significant increase (if the initial t* has been negative, this would imply a significant decrease). If t* is less than t_c, then conclude that there most likely has been no change.

A further discussion of the test may be found in Statistical Methods (6th Edition, Section 4.14) by G. W. Snedecor and W. G. Cochran, or Principles and Procedures of Statistics (1st Edition, Section 5.8) by R. G. D. Steel and J. H. Torrie.

STANDARD T-TABLES 0.05 LEVEL OF SIGNIFICANCE

Degrees of Freedom	t-values (one-tail)	t-values (two-tail)
1	6.314	12.706
2	2.920	4.303
3	2.353	3.182
4	2.132	2.776
5	2.015	2.571
6	1.943	2.447
7	1.895	2.365
8	1.860	2.306
9	1.833	2.262
10	1.812	2.228
Degrees of Freedom	**t-values (one-tail)**	**t-values (two-tail)**
11	1.796	2.201
12	1.782	2.179
13	1.771	2.160
14	1.761	2.145
15	1.753	2.131
16	1.746	2.120
17	1.740	2.110
18	1.734	2.101
19	1.729	2.093
20	1.725	2.086
21	1.721	2.080
22	1.717	2.074
23	1.714	2.069
24	1.711	2.064
25	1.708	2.060
30	1.697	2.042
40	1.684	2.021

Adopted from Table III of "Statistical Tables for Biological, Agricultural, and Medical Research" (1947, R. A. Fisher and F. Yates).

Authors: Stephen C. Maurer, Michael B. Champion
Statutory Authority: Code of Alabama 1975, §22-30-11.
History: April 9, 1986.
Amended: August 24, 1989; April 17, 2003.

335-14-5 APPENDIX V - Examples Of Potentially Incompatible Waste. Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

GROUP 1-A

Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosive alkalies
Lime wastewater
Lime and water
Spent caustic

GROUP 1-B

Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte acid
Etching acid liquid or solvent
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid
Spent sulfuric acid
Potential consequences: Heat generation; violent reaction.

GROUP 2-A

Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides

GROUP 2-B

Any waste in Group 1-A or 1-B
Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

GROUP 3-A

Alcohols
Water

GROUP 3-B

Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
Other waste-reactive waste
Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

GROUP 4-A

Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

GROUP 4-B

Concentrated Group 1-A or 1-B wastes
Group 2-A wastes
Potential consequences: Fire, explosion, or violent reaction.

GROUP 5-A

Spent cyanide and sulfide solutions

GROUP 5-B
Group 1-B wastes
Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

GROUP 6-A

Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

GROUP 6-B

Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes

Other flammable and combustible wastes
Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste".
California Department of Health, February 1975.

Author: Stephen C. Maurer
Statutory Authority: Code of Alabama 1975, §22-30-11.
History: July 19, 1982.
Amended: August 24, 1989.

335-14-5 APPENDIX VI - [Reserved].

335-14-5 APPENDIX VII - [Reserved].

335-14-5 APPENDIX VIII - [Reserved].

335-14-5 APPENDIX IX - Groundwater Monitoring List[1]

Common Name[2]	**CASRN[3]**	**Chemical Abstracts Service Index Name[4]**
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetophenone	98-86-2	Ethanone, 1-phenyl-
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
2-Acetylamino fluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethano naphthalene, 1,2,3,4,10, 10-hexachloro- 1,4,4a,5, 8,8a-hexahydro- (1α, 4α,4aβ,5aα, 8α, 8aβ)-
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4-amine
Aniline	62-53-3	Benzenamine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Aramite	140-57-8	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]- 1-methyleth yl ester
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium

Benzene	71-43-2	Benzene
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene
Benzyl alcohol	100-51-6	Benzenemethanol
Beryllium	(Total)	Beryllium
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α, 2α,3β,4β, 5β,6β)-
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α, 2β,3α,4β, 5α, 6β)-
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α, 2α,3α,4β, 5α, 6β)-
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α, 2α,3β,4α, 5α, 6β)-
Bis(2-chloroethoxy) methane	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-
Bis(2-chloroethyl)ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichloro-diisopropyl ether	108-60-1	Propane, 2,2'-oxybis[1-chloro-
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester
Bromodichloro-methane	75-27-4	Methane, bromodichloro-
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester
Cadmium	(Total)	Cadmium
Carbon disulfide	75-15-0	Carbon disulfide
Carbon tetrachloride	56-23-5	Methane, tetrachloro-
Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7, 8,8-octachloro-2,3,3a,4, 7,7a- hexahydro-
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-
Chlorobenzene	108-90-7	Benzene, chloro-

Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro-α-(4-chlorophenyl)- α-hydroxy-, ethyl ester
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-
Chloroform	67-66-3	Methane, trichloro-
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-
2-Chlorophenol	95-57-8	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-
Chromium	(Total)	Chromium
Chrysene	218-01-9	Chrysene
Cobalt	(Total)	Cobalt
Copper	(Total)	Copper
m-Cresol	108-39-4	Phenol, 3-methyl-
o-Cresol	95-48-7	Phenol, 2-methyl-
p-Cresol	106-44-5	Phenol, 4-methyl-
Cyanide	57-12-5	Cyanide
2,4-D; 2,4-Dichloro-phenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
Diallate	2303-16-4	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3-dichloro-2-propenyl) ester
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene
Dibenzofuran	132-64-9	Dibenzofuran
Dibromochloro methane; Chlorodi bromomethane	124-48-1	Methane, dibromochloro-
1,2-Dibromo-3-chloro- propane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-

m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoro methane	75-71-8	Methane, dichlorodifluoro-
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-, (E)-
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9, 9-hexachloro-1a,2,2a, 3,6,6a,7,7a-octahydro-, (1aα,2β,2aα,3β, 6β,6aα, 7β, 7aα)-
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
p-(Dimethylamino) azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4- (phenylazo)
7,12-Dimethylbenz[a] anthracene	57-97-6	Benz[a]anthracene,7,12-dimethyl-
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
alpha, alpha-Dimethylphene- thylamin e	122-09-8	Benzeneethanamine, α,α- dimethyl-
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-

2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec- Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl) -4,6- dinitro-
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
1,4-Dioxane	123-91-1	1,4-Dioxane
Diphenylamine	122-39-4	Benzenamine, N-phenyl-
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S- [2-(ethylthio)ethyl]ester
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9, 10,10-hexachloro- 1,5, 5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aβ,6α,9α, 9aβ)-
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9, 10,10-hexachloro- 1,5,5a,6, 9,9a-hexahydro- 3-oxide, (3α,5aα,6β,9β, 9aα)-
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9, 10,10-hexachloro- 1,5,5a,6, 9,9a-hexahydro-, 3,3-dioxide
Endrin	72-20-8	2,7:3,6-Demethanonaphth[2,3-b]oxirene,3,4, 5, 6,9,9-hexachloro-,1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα,2β,2aβ,3α, 6α,6aβ, 7β, 7aα)-
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta [cd]pentalene- 5-carboxaldehyde, 2,2a,3,3,4,7- hexachlorodecahydro-, (1α,2β, 2aβ, 4β,4aβ,5β, 6aβ, 6bβ,7R*)-
Ethylbenzene	100-41-4	Benzene, ethyl-
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester
Famphur	52-85-7	Phosphorothioic acid, O-[4- [(dimethylamino) sulfonyl] phenyl]-O, O-dimethyl ester
Fluoranthene	206-44-0	Fluoranthene
Fluorene	86-73-7	9H-Fluorene
Heptachlor	76-44-8	4,7-Methano-1H-indene,1, 4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1, 2-b]oxirene,2, 3,4,5, 6,7,7- heptachloro-1a,lb,5,5a,6, 6a-hexahydro-,(1aα, lbβ,2α,5α, 5aβ,6β, 6aα)
Hexachlorobenzene	118-74-1	Benzene, hexachloro-

Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5- hexachloro-
Hexachloroethane	67-72-1	Ethane, hexachloro-
Hexachlorophene	70-30-4	Phenol, 2,2'-methylenebis [3,4,6-trichloro-
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	591-78-6	2-Hexanone
Indeno(1,2,3-cd) pyrene	193-39-5	Indeno[1,2,3-cd]pyrene
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene,1,2,3,4,10, 10-hexachloro-1,4,4a,5,8,8a hexahydro-(lα, 4α,4aβ,5β, 8β,8aβ)-
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143-50-0	1,3,4-Metheno-2H-cyclo buta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-
Methapyrilene	91-80-5	1,2,Ethanediamine, N,N-dimethyl-N'-2- pyridinyl-N'-(2-thienylmet hyl)-
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2, trichloro-ethylidene)bis [4-methoxy-
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro- 3-methyl-
Methylene bromide; Dibromo - methane	74-95-3	Methane, dibromo-
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-
Methyl ethyl ketone; MEK	78-93-3	2-Butanone
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-

Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O- (4-nitrophenyl) ester
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-
Naphthalene	91-20-3	Naphthalene
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione
1-Naphthylamine	134-32-7	1-Naphthalenamine
2-Naphthylamine	91-59-8	2-Naphthalenamine
Nickel	(Total)	Nickel
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-
Nitrobenzene	98-95-3	Benzene, nitro-
o-Nitrophenol	88-75-5	Phenol, 2-nitro-
p-Nitrophenol	100-02-7	Phenol, 4-nitro-
4-Nitroquinoline 1-oxide	56-57-5	Quinoline, 4-nitro-, 1-oxide
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-
N-Nitrosomethylethalamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl- O-(4-nitrophenyl) ester
Polychlorinated biphenyls; PCBs	See Note 4	1,1'-Biphenyl, chloro derivatives
Polychlorinated dibenzo-p- dioxins; PCDDs	See Note 5	Dibenzo[b,e][1,4]dioxin, chloro derivatives
Polychlorinated dibenzo- furans; PCDFs	See Note 6	Dibenzofuran, chloro derivatives
Pentachlorobenzene	608-93-5	Benzene, pentachloro-
Pentachloroethane	76-01-7	Ethane, pentachloro-
Pentachloronitro-benzene	82-68-8	Benzene, pentachloronitro-

Pentachlorophenol	87-86-5	Phenol, pentachloro-
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)
Phenanthrene	85-01-8	Phenanthrene
Phenol	108-95-2	Phenol
p-Phenylenediamine	106-50-3	1,4-Benzenediamine
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio) methyl] ester
2-Picoline	109-06-8	Pyridine, 2-methyl-
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1- dimethyl-2-propynyl)-
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile
Pyrene	129-00-0	Pyrene
Pyridine	110-86-1	Pyridine
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
Selenium	(Total)	Selenium
Silver	(Total)	Silver
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichloro- phenoxy)-
Styrene	100-42-5	Benzene, ethenyl-
Sulfide	18496-25-8	Sulfide
2,4,5-T; 2,4,5-Trichloro- phenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
2,3,7,8-TCDD; 2,3,7, 8- Tetrachlorodi benzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin, 2,3,7,8- tetrachloro-
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-
Tetraethyl dithiopyro- phosphate; Sulfotepp	3689-24-5	Thiodiphosphoric acid, $([(HO)_2 P(S)]_2O$, tetraethyl ester
Thallium	(Total)	Thallium
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-

o-Toluidine	95-53-4	Benzenamine, 2-methyl-
Toxaphene	8001-35-2	Toxaphene
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid,O,O,O- triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride	75-01-4	Ethene, chloro-
Xylene (total)	1330-20-7	Benzene, dimethyl-
Zinc	(Total)	Zinc

[1] Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

[2] Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

[3] CAS index names are those used in the 9th Cumulative Index.

[4] Polychlorinated biphenyls (CAS RN 1336-36-3): this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

[5] This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins.

[6] This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-6
INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

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335-14-6-.01 General.

(1) Purpose, scope, and applicability.

(a) The purpose of 335-14-6 is to establish minimum standards that define the acceptable management of hazardous waste during the effective term of interim status and until the certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) Except as provided in 335-14-6-.29, the standards of 335-14-6, and of 335-14-5-.19 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste who have fully complied with the requirements for interim status under rule 335-14-8-.07 until either a final facility permit is issued or until applicable 335-14-6 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by section 3010(a) of RCRA and/or failed to file Part A of the permit application as required by rule 335-14-8-.07. These standards apply to all treatment, storage, and disposal of hazardous waste at these facilities after the effective date of 335-14-6, except as specifically provided otherwise in 335-14-6 or 335-14-2.

Generators operating landfills, waste piles, or surface impoundments or other land units without an AHWMMA Permit or interim status may be required by the Department to comply with the requirements of 335-14-6-.06, but shall not be granted interim status unless they otherwise qualify for interim status under Division 335-14. These units shall be subject to the closure and post-closure requirements of 335-14-5, except that closure and post-closure plans for these units shall be processed according to the Administrative procedures of rule 335-14-6-.07.

(c) The requirements of 335-14-6 do not apply to:

1. [Reserved]

2. [Reserved]

3. [Reserved]

4. [Reserved]

5. The owner or operator of a facility permitted by the Department to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under 335-14-6 by 335-14-3-.01(4);

6. The owner or operator of a facility managing recyclable materials described in 335-14-2-.01(6)(a)2., 3. and 4. (except to the extent that requirements of 335-14-6 are referred to in 335-14-17 or rules 335-14-7-.03, 335-14-7-.06, 335-14-7-.07, or 335-14-7-.08);

7. A generator accumulating waste on-site in compliance with 335-14-3-.01, except as otherwise provided in rule 335-14-3;

8. A farmer disposing of waste pesticides from his own use in compliance with 335-14-3-.07(1);

9. The owner or operator of a totally enclosed treatment facility, as defined in 335-14-1-.02;

10. The owner or operator of an elementary neutralization unit or wastewater treatment unit as defined in 335-14-1-.02, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes [other than the D001 High TOC Subcategory defined in 335-14-9-.04(1), Table "Treatment Standards for Hazardous Wastes"], or reactive (D003) waste, in order to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in 335-14-6-.02(8)(b).

11. (i) Except as provided in 335-14-6-.01(1)(c)11.(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:

(I) A discharge of hazardous waste;

(II) An imminent and substantial threat of a discharge of hazardous waste;

(III) A discharge of a material which, when discharged, becomes a hazardous waste;

(IV) An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 335-14-1-.02.

(ii) An owner or operator of a facility otherwise regulated by 335-14-6 must comply with all applicable requirements of rules 335-14-6-.03 and 335-14-6-.04.

(iii) Any person who is covered by 335-14-6-.01(1)(c)11.(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of 335-14-6 and 335-14-8 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a Federal, State of Alabama, Tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency

response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA Identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

12. [Reserved]

13. The addition of sorbent material to waste in a container or the addition of waste to sorbent material in a container, provided that these activities occur at the time waste is first placed in the container, and 335-14-6-.02(8) and 335-14-6-.09(2) and (3) are complied with.

14. Universal waste handlers and universal waste transporters [as defined in 335-14-1-.02] handling the wastes listed below. These handlers are subject to regulation under 335-14-11, when handling the below listed universal wastes.

(i) Batteries as Described in 335-14-11-.01(2);

(ii) Pesticides as described in 335-14-11-.01(3);

(iii) Mercury-containing equipment as described in 335-14-11-.01(4);

(iv) Lamps as described in 335-14-11-.01(5); and

(v) Aerosol cans as described in 335-14-11-.01(6).

15. Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in 335-14-1-.02. Reverse distributors are subject to regulation under 335-14-7-.16 in lieu of 335-14-6 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(d) The following hazardous wastes must not be managed at facilities subject to regulation under 335-14-6.

1. EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 unless:

(i) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) The waste is stored in tanks or containers;

(iii) The waste is stored or treated in waste piles that meet the requirements of 335-14-5-.12(1)(c) as well as all other applicable requirements of rule 335-14-6-.12;

(iv) The waste is burned in incinerators that are certified pursuant to the standards and procedures in 335-14-6-.15(13); or

(v) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 335-14-6-.16(14).

(e) The requirements of 335-14-6 apply to owners or operators of all facilities which treat, store, or dispose of hazardous waste referred to in 335-14-9, and 335-14-9 standards are considered material conditions or requirements of 335-14-6 interim status standards.

(f) 335-14-7-.13(6) identifies when the requirements of 335-14-6-.01 apply to the storage of military munitions classified as solid waste under 335-14-7-.13(3). The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 335-14-1 through 335-14-9.

(2) [Reserved]

(3) [Reserved]

(4) Imminent hazard action.

(5) Notwithstanding any other provisions of these rules, enforcement actions may be brought pursuant to Section 7003 of RCRA.

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335-14-6-.02 General Facility Standards.

(1) Applicability. The requirements of 335-14-6-.02 apply to owners and operators of all hazardous waste facilities except as 335-14-6-.01(1) provides otherwise.

(2) Identification number. Every facility owner or operator must obtain an EPA identification number by submitting a completed Notification of Regulated Waste Activity, ADEM Form 8700-12, to the Department, along with the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(3) Required notices.

(a) 1. The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the Department in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

2. The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to rule 335-14-3-.09 must provide a copy of the movement document bearing all required signatures to the foreign exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; to the Alabama Department of Environmental Management, Land Division, P. O. Box 301463, Montgomery, AL 36130; and to the competent authorities of all other countries concerned within three (3) working days of receipt of the shipment. The original of the signed movement document must be maintained at the facility for at least three (3) years. In addition, such owner or operator shall, as soon as possible, but no later than thirty (30) days after the completion of recovery and no later than one (1) calendar year following the receipt of the hazardous waste, send a certificate of recovery to the foreign exporter, to the competent authority of the country of export, to the Department, and to EPA's Office of Enforcement and Compliance Assurance at the above address by mail, e-mail without digital signature followed by mail, or fax followed by mail.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of 335-14-6 and 335-14-8. However, an owner's or operator's failure to notify the new owner or operator as required by 335-14-6-.02(3)(b) in no way relieves the new owner or operator of his obligation to comply with all applicable requirements of Division 335-14.

(c) 1. A facility owner or operator must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current waste activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate

attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

2. In order to eliminate the need for multiple Notifications during the reporting year, facilities which anticipate periodically switching between generator classifications should notify for the higher classification (i.e., if a facility typically operates as small quantity generator, but anticipates being a large quantity generator for any period during the year, they should notify as a large quantity generator); and

3. The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(4) General waste analysis.

(a) Before an owner or operator treats, stores, or disposes of any hazardous waste, or non-hazardous wastes if applicable under 335-14-6-.07(4)(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of 335-14-6, 335-14-7, and 335-14-9.

1. The analysis may include data developed under 335-14-2, and existing published or documented data on the hazardous waste or on waste generated from similar processes.

2. The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes or non-hazardous waste, if applicable, under 335-14-6-.07(4)(d) has changed; and

(ii) For off-site facilities, when the results of the inspection or analysis required in 335-14-6-.02(4)(a)3. indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

3. The owner or operator of an off-site facility must inspect and analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with 335-14-6-.02(4)(a). He must keep this plan at the facility. At a minimum, the plan must specify:

1. The parameters for which each hazardous waste, or non-hazardous waste if applicable under 335-14-6-.07(4)(d), will be analyzed and the rationale for the selection of these parameters [i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with 335-14-6-.02(4)(a)];

2. The test methods which will be used to test for these parameters;

3. The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in 335-14-2-Appendix I; or

(ii) An equivalent sampling method approved by the Department.

4. The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

5. For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

6. Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in 335-14-6-.10(11), 335-14-6-.11(6), 335-14-6-.12(3), 335-14-6-.13(4), 335-14-6-.14(15), 335-14-6-.15(2), 335-14-6-.16(6), 335-14-6-.17(3), 335-14-6-.27, 335-14-6-.28, 335-14-6-.29, 335-14-7-.08(4), and 335-14-9-.01(7).

7. For surface impoundments exempted from land disposal restrictions under 335-14-9-.01(4), the procedures and schedule for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and

(iii) The annual removal of residues which are not delisted under 335-14-1-.03(2) or which exhibit a characteristic of hazardous waste and either:

(I) Do not meet applicable treatment standards of rule 335-14-9-.04; or

(II) Where no treatment standards have been established;

I. Such residues are prohibited from land disposal under 335-14-9-.03(13) or RCRA Section 3004(d); or

II. Such residues are prohibited from land disposal under 335-14-9-.03(14).

8. For owners and operators seeking an exemption to the air emission standards of 335-14-6-.29:

(i) The procedures and schedules for waste sampling and analysis, and the analysis of test data to verify the exemption.

(ii) Each generator's notice and certification of the volatile organic concentration in the waste if the waste is received from off site.

(c) For off-site facilities, the waste analysis plan required in 335-14-6-.02(4)(b) must also specify the procedures which will be used to inspect and analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe and justify:

1. The procedures which will be used to determine the identity of each movement of waste managed at the facility and shall include collection of representative samples which will be obtained from each waste stream from each shipment of waste received from each generator and analyzed in accordance with the requirements of 335-14-6-.02(4) to accurately identify each movement of hazardous waste received at the facility;

2. The sampling method and number of samples which will be used to obtain a representative sample of the waste stream to be identified; and

3. The method(s) which will be used to analyze the sample(s).

4. The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

(d) For off-site facilities, samples of waste(s) from each generator collected in accordance with the requirements of 335-14-6-.02(4)(c) may be composited prior to analysis provided that:

1. No more than ten individual samples are composited into any one sample for analysis; and

2. Only compatible wastes from the same generator and waste stream are composited into any one sample which is to be analyzed.

3. In the event that the analytical results of sample(s) obtained in compliance with the requirements of 335-14-6-.02(4) indicate that the hazardous waste received at the facility does not match the waste described on the accompanying manifest or shipping paper, the facility owner or operator shall:

(i) Collect and analyze a representative sample from each container;

(ii) Identify the container(s) holding the waste(s) which cause the discrepancy to occur; and

(iii) Comply with the requirements of 335-14-6-.05(3)(b).

(e) Upon receipt of a satisfactory demonstration based on the types of waste received and treated, stored or disposed of at the facility, processes utilized to manage the waste, and any other reasonable factors, the Department may grant a partial or full exemption from the requirements for the sampling and analysis of each shipment of waste as required by 335-14-6-.02(4)(c).

[**Note:** The term "movement" as used in 335-14-6-.02(4) refers to individual truckloads, batches, shipments, etc., of wastes received at the facility. It is not intended to impose requirements for additional waste analyses for internal movements of wastes within the facility unless otherwise required by Division 335-14.]

(5) Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless:

1. Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and

2. Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of 335-14-6.

(b) Unless exempt under 335-14-6-.02(5)(a)1. and (a)2., a facility must have:

1. A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

2. (i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(c) Unless exempt under 335-14-6-.02(5)(a)1. and (a)2., a sign with the legend, "Danger--Unauthorized Personnel Keep Out", must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and in any other language predominant in the workplace and the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger--

Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

(6) General inspection requirements.

(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to:

1. Release of hazardous waste constituents to the environment; or

2. A threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b) 1. The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

2. He must keep this schedule at the facility.

3. The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

4. The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in 335-14-6-.09(5), 335-14-6-.10(4), 335-14-6-.10(6), 335-14-6-.11(7), 335-14-6-.12(11), 335-14-6-.13(9), 335-14-6-.14(5), 335-14-6-.15(8), 335-14-6-.16(8), 335-14-6-.17(4), 335-14-6-.27, 335-14-6-.28, 335-14-6-.28, 335-14-6-.28, and 335-14-6-.29, where applicable.

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(7) Personnel training.

(a) Facility personnel whose duties have a direct effect on hazardous waste management and/or hazardous waste accumulation, whether by direct contact with the hazardous waste or through hazardous waste management activities, must receive training.

1. Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 335-14-6. The owner or operator must ensure that this program includes all the elements described in the document required under 335-14-6-.02(7)(d)3.

2. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

3. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to groundwater contamination incidents; and

(vi) Shutdown of operations.

4. For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant 335-14-6-.02(7), provided that the overall facility training meets all the requirements of 335-14-6-.02(7).

(b) Facility personnel must successfully complete the program required in 335-14-6-.02(7)(a) within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of 335-14-6-.02(7)(a).

(c) Facility personnel must take part in an annual review of the initial training required in 335-14-6-.02(7)(a).

(d) The owner or operator must maintain the following documents and records at the facility:

1. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

2. A written job description for each position listed under 335-14-6-.02(7)(d)1. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

3. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under 335-14-6-.02(7)(d)1.;

4. Records that document that the training or job experience required under 335-14-6-.02(7)(a), (b), and (c) have been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(8) <u>General requirements for ignitable, reactive, or incompatible wastes</u>.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting, and welding, hot surfaces, frictional heat, sparks (static, electrical or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other paragraphs of 335-14-6, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

1. Generate extreme heat or pressure, fire or explosion, or violent reaction;

2. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4. Damage the structural integrity of the device or facility containing the waste; or

5. Through other like means threaten human health or the environment.

(9) Location standards. The placement of any hazardous waste in a salt dome, salt bed formation, underground mine, or cave is prohibited.

(10) Construction quality assurance program.

(a) CQA program.

1. A construction quality assurance (CQA) program is required for all surface impoundment, waste pile and landfill units that are required to comply with 335-14-6-.11(2)(a), 335-14-6-.12(5), and 335-14-6-.14(2)(a). The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

2. The CQA program must address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes (flexible membrane liners);

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. Before construction begins on a unit subject to the CQA program under 335-14-6-.02(10)(a), the owner or operator must develop and implement a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include:

1. Identification of applicable units and a description of how they will be constructed.

2. Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

3. A description of inspection and sampling activities for all unit components identified in 335-14-6-.02(10)(a)2., including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under 335-14-6-.05(4).

(c) Contents of program.

1. The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in 335-14-6-.02(10)(a)2.;

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications;

(iii) Conformity of all materials used with design and other material specifications under 335-14-5-.11(2), 335-14-5-.12(2), and 335-14-5-.14(2).

2. The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full-scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1., 335-14-5-.12(2)(c)1., and 335-14-5-.14(2)(b)1. in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The test fill requirement is waived where data are sufficient to show that a constructed soil liner meets the hydraulic conductivity requirements of 335-14-5-.11(2)(c)1., 335-14-5-.12(2)(c)1., and 335-14-5-.14(2)(b)1. in the field.

(d) Certification. The owner or operator of units subject to 335-14-6-.02(10) must submit to the Director by certified mail or hand delivery, at least 30 days prior to receiving waste, a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of 335-14-6-.11(2)(a), 335-14-6-.12(5), or 335-14-6-.14(2)(a). The owner or operator may receive waste in the unit after 30 days from the Director's receipt of the CQA certification unless the Director determines in writing that the construction is not acceptable, or extends the review period for a maximum of 30 more days, or seeks additional information from the owner or operator during this period. Documentation supporting the CQA officer's certification must be furnished to the Director upon request.

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335-14-6-.03 Preparedness and Prevention.

(1) Applicability. The requirements of 335-14-6-.03 apply to owners and operators of all hazardous waste facilities, except as 335-14-6-.01(1) provides otherwise.

(2) Maintenance and operation of facility. Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unpermitted sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health or the environment.

(3) Required equipment. All facilities must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local law enforcement, fire departments, ADEM Field Operations Division or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(4) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(5) Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under 335-14-6-.03(3).

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under 335-14-6-.03(3).

(6) Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(7) [Reserved]

(8) Arrangements with local authorities.

(a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

1. Arrangements to familiarize local law enforcement, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

2. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

3. Agreements with ADEM Field Operations Division emergency response teams, emergency response contractors, and equipment suppliers; and

4. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Documentation of compliance with 335-14-6-.03(8)(a) must be maintained at the facility.

(c) Where State of Alabama or local authorities decline to enter into such arrangements, the owner or operator must also maintain documentation of the refusal.

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335-14-6-.04 Contingency Plan and Emergency Procedures.

(1) Applicability.

The requirements of 335-14-6-.04 apply to owners and operators of all hazardous waste facilities, except as 335-14-6-.01(1) provides otherwise.

(2) Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unpermitted sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(3) Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with 335-14-6-.04(2) and (7) in response to fires, explosions, or any unpermitted sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112 or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient

to comply with the requirements of 335-14-6. The owner or operator may develop one contingency plan which meets all regulatory requirements. ADEM recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan must describe arrangements agreed to by local law enforcement, fire departments, hospitals, contractors, and ADEM Field Operations Division and local emergency response teams to coordinate emergency services, pursuant to 335-14-6-.03(8).

(d) The plan must list names, office and home addresses, and phone numbers of all persons qualified to act as emergency coordinator [see 335-14-6-.04(6)], and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires). All evacuation routes should be depicted on a map to be included with the evacuation plan.

(4) Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local law enforcement, fire departments, hospitals, and ADEM Field Operations Division and local emergency response teams that may be called upon to provide emergency services. Documentation of compliance with this requirement must be maintained at the facility.

(5) Amendment of contingency plan.

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable rules are revised;

(b) The plan fails in an emergency;

(c) The facility changes--in its design, construction, operation, maintenance, or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

(6) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(7) Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

1. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

2. Notify appropriate State of Alabama or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility (release of hazardous waste or hazardous

waste constituents from the active portion of the facility is defined as such a threat), he must report his findings as follows:

1. If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

2. He must immediately notify the Alabama Emergency Management Agency (800/843-0699. 24 hours a day) the National Response Center (800/424-8802 or 202/267-2675, 24 hours a day), and the Department (334/271-7700, 8:00 a.m. to 5:00 p.m., Monday through Friday). The report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire or explosion at the facility. Unless the owner or operator can demonstrate, in accordance with 335-14-2-.01(3)(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Chapters 335-14-3, 335-14-4 and 335-14-6.

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

1. No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

2. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the Department and local authorities, that the facility is in compliance with 335-14-6-.04(7)(h) before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Department. The report must include:

1. Name, address, and telephone number of the owner or operator;

2. Name, address, and telephone number of the facility;

3. Date, time, and type of incident (e.g., fire, explosion);

4. Name and quantity of material(s) involved;

5. The extent of injuries, if any;

6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

7. Estimated quantity and disposition of recovered material that resulted from the incident.

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335-14-6-.05 Manifest System, Recordkeeping and Reporting.

(1) Applicability.

(a) The requirements of 335-14-6-.05 apply to owners and operators of both on-site and off-site facilities, except as 335-14-6-.01(1) provides otherwise. 335-14-6-.05(2), (3), and (7) do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, or to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under 335-14-7-.13(4)(a).

(2) Use of manifest system.

(a) [Reserved]

1. If a facility receives hazardous waste accompanied by a manifest, the owner, operator or his/her agent must sign and date the manifest as indicated in 335-14-6-.05(2)(a)1. to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

2. If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator or his agent must:

(i) Sign and date, by hand, each copy of the manifest;

(ii) Note any discrepancies [as defined in 335-14-6-.05(3)] on each copy of the manifest;

(iii) Immediately give the transporter at least one copy of the manifest;

(iv) Within 30 days of delivery, send a copy (Page 2) of the manifest to the generator;

(v) Paper manifest submission requirements are:

(I) Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy (Page 1) of any paper manifest and any paper continuation sheet to the EPA's e-Manifest system for purposes of data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail/submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

(II) Options for compliance on June 30, 2021. Beginning on June 30, 2021, the requirement to submit the top copy (Page 1) of the paper manifest and any paper continuation sheet to the e-Manifest system for purposes of data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made to the electronic mail/submission address specified at the e-Manifest program website's directory of services; and

(vi) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

3. If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest and documentation confirming EPA's consent to the import of hazardous waste to the following address within thirty (30) days of delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

4. Within 60 days after the delivery, send a copy of the manifest to the Department.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA or Alabama identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

1. Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

2. Note any significant discrepancies [as defined in 335-14-6-.05(3)(a)] in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

3. Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

4. Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

5. Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 335-14-3.

(d) Within three (3) working days of the receipt of a shipment subject to 335-14-3-.09, the owner or operator of a facility must provide a copy of the movement document bearing all required signatures to the exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental

Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; to the Alabama Department of Environmental Management, Land Division, P. O. Box 301463, Montgomery, AL 36130; and to the competent authorities of all other countries concerned. The original of the movement document must be maintained at the facility for at least three (3) years from the date of signature.

(e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under its state hazardous waste program. Facilities must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance with 335-14-3-.01(a)(3), and used in accordance with this section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

1. Any requirement for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 40 C.F.R. § 262.25(a).

2. Any requirement in these regulations to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

3. Any requirement for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment.

4. Any requirement in these regulations for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the electronic manifest system, provided that such copies are readily available for viewing and production if requested by EPA or the Department.

5. No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under this section if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

1. Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;

2. The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;

3. Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system; and

4. The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall retain this original copy among its records for at least 3 years from the date of delivery of the waste.

(j) Imposition of user fee for electronic manifest use.

1. As prescribed in 40 CFR § 265.1311, and determined in 40 CFR § 265.1312, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR § 265.1313.

2. An owner or operator subject to user fees under this section shall make user fee payments in accordance with the requirements of 40 CFR § 265.1314, subject to the informal fee dispute resolution process of 40 CFR § 265.1316, and subject to the sanctions for delinquent payments under 40 CFR § 265.1315.

(k) Electronic manifest signatures shall meet the criteria described in 40 CFR § 262.25(a) of this Chapter.

(l) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person (e.g., waste handler) shown on the manifest.

1. Interested persons must make all corrections to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for such corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

2. Each correction submission must include the following information:

(i) The Manifest Tracking Number and date of receipt by the facility of the original manifest(s) for which data are being corrected;

(ii) The item number(s) of the original manifest that is the subject of the submitted correction(s); and

(iii) For each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

3. Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of his or her knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete:

(i) The certification statement must be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

4. Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

5. Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in 335-14-6-.05(2)(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

(3) Manifest discrepancies.

(a) Manifest discrepancies are:

1. Significant differences [as defined by 335-14-6-.05(3)(b)] between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

2. Rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept; or

3. Container residues, which are residues that exceed the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(b).

(b) Significant differences in quantity are: For bulk waste, variations greater than 10 percent by weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Regional Administrator and the Department a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(d) Upon rejecting the waste or identifying a container residue that exceeds the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(b), the facility must consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility must send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

1. While the facility is making arrangements for forwarding rejected wastes or residues to another facility under 335-14-6-.05(3), it must ensure that either the delivering transporter retains custody of the waste, or, the facility must provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under 335-14-6-.05(3)(e) or (f).

(e) Except as provided in 335-14-6-.05(3)(e)7., for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility is required to prepare a new manifest in accordance with 335-14-3-.02(1)(a) and the following instructions:

1. Write the generator's U.S. EPA ID number in Item 1. of the new manifest. Write the generator's name and mailing address in Item 5. of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space for Item 5.

2. Write the name of the alternate designated facility and facility's U.S. EPA ID number in the designated facility block (Item 8.) of the new manifest.

3. Copy the manifest tracking number found in Item 4. of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4. Copy the manifest tracking number found in Item 4. of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a.).

5. Write the DOT description for the rejected load or the residue in Item 9 (U.S. DOT Description) of the new manifest and write the container types, quantity, and volume(s) of waste.

6. Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

7. For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility must retain a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility must use a new manifest and comply with 335-14-6-.05(3)(e)1. - 6.

(f) Except as provided by 335-14-6-.05(3)(f)7., for rejected wastes and residues that must be sent back to the generator, the facility is required to prepare a new manifest in accordance with 335-14-3-.02(1)(a) and the following instructions:

1. Write the facility's U.S. EPA ID number in Item 1. of the new manifest. Write the facility's name and mailing address in Item 5. of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5. of the new manifest.

2. Write the name of the initial generator and the generator's U.S. EPA ID number in the designated facility block (Item 8.) of the new manifest.

3. Copy the manifest tracking number found in Item 4. of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4. Copy the manifest tracking number found in Item 4. of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a.).

5. Write the DOT description for the rejected load or the residue in Item 9. (U.S. DOT Description) of the new manifest and write the container types, quantity, and volume(s) of waste.

6. Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation.

7. For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility must retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility must use a new manifest and comply with 335-14-6-.05(3)(f)1. – 6. and 8.

8. For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility must also comply with the exception reporting requirements in 335-14-3-.04(3).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in 335-14-2-.01(7)(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or the generator, the facility must amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility must also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and must re-sign and date the manifest to certify to the information as amended. The facility must retain the amended manifest for at least three years from the date of amendment, and must within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended.

(4) <u>Operating record</u>.

(a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record for three years (unless a different retention time is specified below):

1. A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the

facility as required by 335-14-6-Appendix I. This information must be maintained in the operating record until closure of the facility;

2. The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;

3. Records and results of waste analyses and trial tests performed as specified in 335-14-6-.02(4), 335-14-6-.10(11), 335-14-6-.11(6), 335-14-6-.12(3), 335-14-6-.13(4), 335-14-6-.14(15), 335-14-6-.15(2), 335-14-6-.16(6), 335-14-6-.17(3), 335-14-6-.27, 335-14-6-.28, 335-14-9-.01(4), and 335-14-9-.01(7).

4. Summary reports and details of all incidents that require implementing the contingency plan as specified in 335-14-6-.04(7)(j);

5. Records and results of inspections as required by 335-14-6-.02(6)(d) (except these data need be kept only three years);

6. Monitoring, testing or analytical data, and corrective action where required by rule 335-14-6-.06 and 335-14-6-.02(10), 335-14-6-.03(4), 335-14-6-.06(1), 335-14-6-.06(5), 335-14-6-.09(5), 335-14-6-.10(2), 335-14-6-.10(4), 335-14-6-.10(6), 335-14-6-.11(3), 335-14-6-.11(4), 335-14-6-.11(5), 335-14-6-.11(7), 335-14-6-.12(6), 335-14-6-.12(10), 335-14-6-.12(11), 335-14-6-.13(7), 335-14-6-.13(9), 335-14-6-.13(11)(d)1., 335-14-6-.14(3) through 335-14-6-.14(5), 335-14-6-.15(8), 335-14-6-.16(8), 335-14-6-.17(4), 335-14-6-.23(2) and (5), 335-14-6-.27(5), 335-14-6-.27, 335-14-6-.28, 335-14-6-.28, 335-14-6-.29, and 335-14-6-.30(2). This information must be maintained in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, and response action plans for surface impoundments, waste piles, and landfills, which must be maintained in the operating record until closure of the facility.

7. All closure cost estimates under 335-14-6-.08(3) and, for disposal facilities, all post-closure cost estimates under 335-14-6-.08(5) must be maintained in the operating record until closure of the facility.

8. Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to 335-14-9-.01(5), monitoring data required pursuant to a petition under 335-14-9-.01(6), or a certification under 335-14-9-.01(8), and the applicable notice required by a generator under 335-14-9-.01(7). All of this information must be maintained in the operating record until closure of the facility.

9. For an off-site treatment facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

10. For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8);

11. For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under 335-14-9-.01(7) or 335-14-9-.01(8);

12. For an on-site land disposal facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under 335-14-9-.01(7) or 335-14-9-.01(8).

13. For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under 335-14-9-.01(7) or 335-14-9-.01(8); and

14. For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under 335-14-9-.01(7) or 335-14-9-.01(8).

15. Monitoring, testing or analytical data, and corrective action where required by 335-14-6-.06(1), 335-14-6-.06(4)(d)2. and 5., and the certification as required by 335-14-6-.10(7)(f) must be maintained in the operating record until closure of the facility.

(5) <u>Availability, retention, and disposition of records</u>.

(a) All records, including plans, required under 335-14-6 must be furnished upon request, and made available at all reasonable times for inspection, by any duly designated officer, employee, or representative of the Department.

(b) The retention period for all records required under 335-14-6 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Department.

(c) A copy of records of waste disposal locations and quantities under 335-14-6-.05(4)(b)2. must be submitted to the Department and local land authority upon closure of the facility [see 335-14-6-.07(10)].

(6) <u>Biennial report</u>.

The owner or operator must prepare and submit a single copy of a biennial report to the Department by March 1 of each even numbered year. The biennial report must be submitted on forms supplied by the Department. The owner or operator must retain copies of each biennial report for, at least, three (3) years from the due date of the report. The report must cover facility activities during the previous calendar year and must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number, name, and location address of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) Monitoring data under 335-14-6-.06(5)(a)2.(ii), (iii) and (b)2. where required;

(g) The most recent closure cost estimate under 335-14-6-.08(3), and, for disposal facilities, the most recent post-closure cost estimate under 335-14-6-.08(5); and

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

(j) The certification signed by the owner or operator of the facility or his authorized representative.

(7) Unmanifested waste report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in 335-14-4-.02(1)(e), and if the waste is not excluded from the manifest requirement, then the owner or operator must prepare and submit a single copy of a report to the Department within 15 days after receiving the waste. The owner or operator must retain a copy of each unmanifested waste report for, at least, three (3)

years from the due date of the report. Such report must be designated "Unmanifested Waste Report" and include the following information:

1. The EPA identification number, name, and address of the facility;

2. The date the facility received the waste;

3. The EPA identification number, name, and address of the generator and the transporter, if available;

4. A description and the quantity of each unmanifested hazardous waste the facility received;

5. The method of treatment, storage, or disposal for each hazardous waste;

6. The certification signed by the owner or operator of the facility or his authorized representative; and

7. A brief explanation of why the waste was unmanifested, if known.

(b) [Reserved]

(8) Additional reports.

In addition to submitting the biennial report and unmanifested waste reports described in 335-14-6-.05(6) and (7), the owner or operator must also report to the Department:

(a) Releases, fires, and explosions as specified in 335-14-6-.04(7)(j);

(b) Groundwater contamination and monitoring data as specified in 335-14-6-.06(4) and (5); and

(c) Facility closure as specified in 335-14-6-.07(6).

(d) As otherwise required by rules 335-14-6-.27 and 335-14-6-.28.

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335-14-6-.06 Groundwater Monitoring.

(1) Applicability.

(a) The owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a groundwater monitoring program capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility, except as 335-14-6-.01(1) and 335-14-6-.06(1)(c) provides otherwise.

(b) Except as 335-14-6-.06(1)(c) and (d) provide otherwise, the owner or operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 335-14-6-.06(2), and must comply with 335-14-6-.06(3), (4), and (5). This groundwater monitoring program must be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the groundwater monitoring requirements of 335-14-6-.06 may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing, and must be kept at the facility. This demonstration must be certified by a licensed professional geologist and/or registered professional engineer and must establish the following:

1. The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(ii) Unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to groundwater); and

2. The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics (i.e., geologic materials, physical properties and rate of groundwater flow); and

(ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that groundwater monitoring of indicator parameters in accordance with 335-14-6-.06(2) and (3) would show statistically significant increases (or decreases in the case of pH) when evaluated under 335-14-6-.06(4)(b), he may install, operate, and maintain an alternate groundwater monitoring system [other than the one described in 335-14-6-.06(2) and (3)]. If the owner or operator decides to use an alternate groundwater monitoring system he must:

1. Within one year after the effective date of these regulations, develop a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of 335-14-6-.06(4)(d)3., for an alternate groundwater monitoring system. This plan is to be placed in the facility's operating record and maintained until closure of the facility;

2. Initiate the determinations specified in 335-14-6-.06(4)(d)4.;

3. Prepare a report in accordance with 335-14-6-.06(4)(d)5. and place it in the facility's operating record and maintain until closure of the facility;

4. Continue to make the determinations specified in 335-14-6-.06(4)(d)4. on a quarterly basis until final closure of the facility; and

5. Comply with the recordkeeping and reporting requirements in 335-14-6-.06(5)(b).

(e) The groundwater monitoring requirements of 335-14-6-.06 may be waived with respect to any surface impoundment that:

1. Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under 335-14-2-.03(3) or are listed as hazardous wastes in rule 335-14-2-.04 only for this reason; and

2. Contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by an independent engineer.

(f) The Department may replace all or part of the requirements of 335-14-6-.06 applying to a regulated unit [as defined in 335-14-5-.06(1)], with alternative requirements developed for groundwater monitoring set out in an approved closure or post-closure plan or in an enforceable document [as defined in 335-14-8-.01(1)(c)7.], where the Department determines that:

1. A regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and

one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and

2. It is not necessary to apply the requirements of 335-14-6-.06 because the alternative requirements will protect human health and the environment. The alternative standards for the regulated unit must meet the requirements of 335-14-5-.06(12)(a).

(2) Groundwater monitoring system.

(a) A groundwater monitoring system must be capable of yielding groundwater samples for analysis and must consist of:

1. Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield groundwater samples that are:

(i) Representative of background groundwater quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility; and

2. Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

3. The facility owner or operator may demonstrate that an alternate hydraulically downgradient monitoring well location will meet the criteria outlined below. The demonstration must be in writing and kept at the facility. The demonstration must be certified by a qualified groundwater scientist and establish that:

(i) An existing physical obstacle prevents monitoring well installation at the hydraulically downgradient limit of the waste management area; and

(ii) The selected alternate downgradient location is as close to the limit of the waste management area as practical; and

(iii) The location ensures detection that, given the alternate location, is as early as possible of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(iv) Lateral expansion, new, or replacement units are not eligible for an alternate downgradient location under 335-14-6-.06(2).

(b) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

1. In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).

2. In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g., cement grout or bentonite slurry) to prevent contamination of samples and the groundwater. Monitoring wells must be operated and maintained in a manner to prevent soil, surface water, and/or groundwater contamination. This requirement includes the installation of protective barriers around monitoring wells where necessary to prevent damage to the well from traffic or other causes or as required on a case-by-case basis by the Department. All monitoring wells must have functional key or combination locks on the wellhead covers to prevent unauthorized access. All monitoring wells must be assigned an identifying number by the facility, and such numbers must be permanently affixed to the outer casing of each monitoring well.

(3) <u>Sampling and analysis</u>.

(a) The owner or operator must obtain and analyze samples from the installed groundwater monitoring system. The owner or operator must develop and follow a groundwater sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

1. Sample collection;

2. Sample preservation and shipment;

3. Analytical procedures; and

4. Chain of custody control.

(b) The owner or operator must determine the concentration or value of the following parameters in groundwater samples in accordance with 335-14-6-.06(3)(c) and (d):

1. Parameters characterizing the suitability of the groundwater as a drinking water supply, as specified in 335-14-6-Appendix III;

2. Parameters establishing groundwater quality:

(i) Chloride;

(ii) Iron;

(iii) Manganese;

(iv) Phenols;

(v) Sodium;

(vi) Sulfate;

3. Parameters used as indicators of groundwater contamination:

(i) pH;

(ii) Specific Conductance;

(iii) Total Organic Carbon; and

(iv) Total Organic Halogen.

(c) 1. For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in 335-14-6-.06(3)(b). He must do this quarterly for one year.

2. For each of the indicator parameters specified in 335-14-6-.06(3)(b)3., at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

1. Samples collected to establish groundwater quality must be obtained and analyzed for the parameters specified in 335-14-6-.06(3)(b)2. at least annually.

2. Samples collected to indicate groundwater contamination must be obtained and analyzed for the parameters specified in 335-14-6-.06(3)(b)3. at least semi-annually.

(e) Elevation of the groundwater surface at each monitoring well must be determined each time a sample is obtained.

(4) Preparation, evaluation, and response.

(a) The owner or operator must prepare an outline of a groundwater quality assessment program. The outline must describe a more comprehensive groundwater monitoring program [than that described in 335-14-6-.06(2) and (3)] capable of determining:

1. Whether hazardous waste or hazardous waste constituents have entered the groundwater;

2. The rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater; and

3. The concentrations of hazardous waste or hazardous waste constituents in the groundwater.

(b) For each indicator parameter specified in 335-14-6-.06(3)(b)3., the owner or operator must calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with 335-14-6-.06(3)(d)2., and compare these results with its initial background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance (see 335-14-6-Appendix IV) to determine statistically significant increases (and decreases, in the case of pH) over initial background.

(c) 1. If the comparisons for the upgradient wells made under 335-14-6-.06(4)(b) show a significant increase (or pH decrease), the owner or operator must submit this information in accordance with 335-14-6-.06(5)(a)2.(ii).

2. If the comparisons for downgradient wells made under 335-14-6-.06(4)(b) show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional groundwater samples from those downgradient wells where a significant difference was detected, split the samples in two and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d) 1. If the analyses performed under 335-14-6-.06(4)(c)2. confirm the significant increase (or pH decrease), the owner or operator must provide written notice to the Department--within seven days of the date of such confirmation--that the facility may be affecting groundwater quality.

2. Within 15 days after the notification under 335-14-6-.06(4)(d)1., the owner or operator must develop a specific plan, based on the outline required under 335-14-6-.06(4)(a) and certified by a qualified geologist or geotechnical engineer, for a groundwater quality assessment at the facility. This plan must be placed in the facility operating record and be maintained until closure of the facility.

3. The plan to be submitted under 335-14-6-.06(1)(d)1. or 335-14-6-.06(4)(d)2. must specify:

(i) The number, location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously gathered groundwater quality information; and

(iv) A schedule of implementation.

(v) Include provisions for modification of the plan in the event the plan, when implemented, does not achieve the objectives of 335-14-6-.06(4)(d)4.

4. The owner or operator must implement the groundwater quality assessment plan which satisfies the requirements of 335-14-6-.06(4)(d)3., and, at a minimum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the groundwater; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the groundwater.

5. The owner or operator must make his first determination under 335-14-6-.06(4)(d)4. as soon as technically feasible, and prepare a report containing an assessment of groundwater quality. This report must be placed in the facility operating record and be maintained until closure of the facility.

6. If the owner or operator determines, based on the results of the first determination under 335-14-6-.06(4)(d)4., that no hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then he may reinstate the indicator evaluation program described in 335-14-6-.06(3) and 335-14-6-.06(4)(b). If the owner or operator reinstates the indicator evaluation program, he must so notify the Department in the report submitted under 335-14-6-.06(4)(d)5.

7. If the owner or operator determines, based on the first determination under 335-14-6-.06(4)(d)4., that hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then he:

(i) Must continue to make the determinations required under 335-14-6-.06(4)(d)4. on a quarterly basis until final closure of the facility, if the groundwater assessment plan was implemented prior to final closure of the facility; or

(ii) May cease to make the determinations required under 335-14-6-.06(4)(d)4., if the groundwater quality assessment plan was implemented during the post-closure care period.

(e) Notwithstanding any other provision of 335-14-6-.06, any groundwater quality assessment to satisfy the requirements of 335-14-6-.06(4)(d)4. which is initiated prior to final closure of the facility must be completed and reported in accordance with 335-14-6-.06(4)(d)5.

(f) Unless the groundwater is monitored to satisfy the requirements of 335-14-6-.06(4)(d)4., at least annually the owner or operator must evaluate the data on groundwater surface elevations obtained under 335-14-6-.06(3)(e) to determine whether the requirements under 335-14-6-.06(2)(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that 335-14-6-.06(2)(a) is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the groundwater monitoring system into compliance with this requirement.

(5) Recordkeeping and reporting.

(a) Unless the groundwater is monitored to satisfy the requirements of 335-14-6-.06(4)(d)4., the owner or operator must:

1. Keep records of the analyses required in 335-14-6-.06(3)(c) and (3)(d), the associated groundwater surface elevations required in 335-14-6-.06(3)(e), and the evaluations required in 335-14-6-.06(4)(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

2. Report the following groundwater monitoring information to the Department:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in 335-14-6-.06(3)(b)1. for each groundwater monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in 335-14-6-Appendix III.

(ii) Annually: Concentrations or values of the parameters listed in 335-14-6-.06(3)(b)3. for each groundwater monitoring well, along with the required evaluations for these parameters under 335-14-6-.06(4)(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with 335-14-6-.06(4)(c)1. During the active life of the facility, this information must be submitted no later than March 1 following each calendar year.

(iii) No later than March 1 following each calendar year: Results of the evaluations of groundwater surface elevations under 335-14-6-.06(4)(f), and a description of the response to that evaluation, where applicable.

(b) If the groundwater is monitored to satisfy the requirements of 335-14-6-.06(4)(d)4., the owner or operator must:

1. Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of 335-14-6-.06(4)(d)3., throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

2. Annually, until final closure of the facility, submit to the Department a report containing the results of his groundwater quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This information must be submitted no later than March 1 following each calendar year.

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335-14-6-.07 Closure and Post-Closure.

(1) Applicability.

Except as 335-14-6-.01(1) provides otherwise:

(a) 335-14-6-.07(2) through 335-14-6-.07(6) [which concern closure] apply to the owners and operators of all hazardous waste management facilities; and

(b) 335-14-6-.07(7) through 335-14-6-.07(11) [which concern post-closure care] apply to the owners and operators of:

1. All hazardous waste disposal facilities;

2. Waste piles, surface impoundments, and drip pads for which the owner or operator intends to remove the wastes at closure to the extent that these paragraphs are made applicable to such facilities in 335-14-6-.11(9), 335-14-6-.12(9), or 335-14-5-.23(6);

3. Tank systems that are required under 335-14-6-.10(8) to meet requirements for landfills; and

4. Containment buildings that are required in 335-14-6-.30(3) to meet the requirements for landfills; and

5. [Reserved]

6. Other hazardous waste management units which are unable to demonstrate closure by removal.

(c) 335-14-6-.07(12) applies to owners and operators of units that are subject to the requirements of 335-14-8-.01(1)(c)7. and are regulated under an enforceable document [as defined in 335-14-8-.01(1)(c)7.].

(d) The Department may replace all or part of the requirements of 335-14-6-.07 [and the unit-specific standards in 335-14-6-.07(2)(c)] applying to a regulated unit [as defined in 335-14-5-.06(1)], with alternative requirements for closure set out in an approved closure or post-closure plan, or in an enforceable document [as defined in 335-14-8-.01(1)(c)7.], where the Department determines that:

1. A regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release, and

2. It is not necessary to apply the closure requirements of 335-14-6-.07 (and/or those referenced herein) because the alternative requirements will protect human health and the environment, and will satisfy the closure performance standard of 335-14-6-.07(2)(a) and (b).

(2) Closure performance standard.

The owner or operator must close the facility in a manner that:

(a) Minimizes the need for further maintenance; and

(b) Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Complies with the closure requirements of 335-14-6-.07 including, but not limited to, the requirements of 335-14-6-.10(8), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), 335-14-6-.14(11), 335-14-6-.15(12), 335-14-6-.16(12), 335-14-6-.17(5), 335-14-6-.23(6), 335-14-6-.30(3), and 335-14-7-.08(4) [§ 266.103(l) of 40 CFR].

(3) Closure plan; amendment of plan.

(a) Written plan. By May 19, 1981, or by six months after the effective date of the rule that first subjects a facility to provisions of 335-14-6-.07(3), the owner or operator of a hazardous waste management facility must have a written closure plan. Until final closure is completed and certified in accordance with 335-14-6-.07(6), a copy of the most current plan

must be furnished to the Department upon request, including request by mail. In addition, for facilities without approved plans, it must also be provided during site inspections, on the day of inspection to any officer, employee, or representative of the Department, who is duly designated by the Department.

(b) Content of plan. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include at least:

1. A description of how each hazardous waste management unit at the facility will be closed in accordance with 335-14-6-.07(2); and

2. A description of how final closure of the facility will be conducted in accordance with 335-14-6-.07(2). The description must identify the maximum extent of the operation which will be unclosed during the active life of the facility; and

3. An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable; and

4. A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to satisfy the closure performance standard; and

5. A detailed description of other activities necessary during the partial and final closure periods to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control; and

6. A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included); and

7. An estimate of the expected year of final closure for facilities that use trust funds to demonstrate financial assurance under 335-14-6-.08(4) or 335-14-6-.08(6) and whose remaining operating life is less than 20 years, and for facilities without approved closure plans.

8. For facilities where the Department has applied alternative requirements at a regulated unit under 335-14-6-.06(1)(f), and/or 335-14-6-.07(1)(d), either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

(c) Amendment of plan. The owner or operator may amend the closure plan at any time prior to the notification of partial or final closure of the facility. An owner or operator with an approved closure plan must submit a written request to the Department to authorize a change to the approved closure plan. The written request must include a copy of the amended closure plan for approval by the Department.

1. The owner or operator must amend the closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the closure plan.

(iv) The owner or operator requests the Department to apply alternative requirements to a regulated unit under 335-14-6-.06(1)(f), and/or 335-14-6-.07(1)(d).

2. The owner or operator must amend the closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must amend the closure plan no later than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments, waste piles, and drip pads who intended to remove all hazardous wastes at closure, but are required to close as landfills in accordance with 335-14-6-.14(11).

3. An owner or operator with an approved closure plan must submit the modified plan to the Department at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event has occurred during the partial or final closure period, the owner or operator must submit the modified plan no more than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments, waste piles, and drip pads who intended to remove all hazardous wastes at closure but are required to close as landfills in accordance with 335-14-6-.14(11). If the amendment to the plan is a major modification according to the criteria in 335-14-8-.04(2) and 335-14-8-.04(3), the modification to the plan will be approved according to the procedures in 335-14-6-.07(3)(d)4.

4. The Department may request modifications to the plan under the conditions described in 335-14-6-.07(3)(c)1. An owner or operator with an approved closure plan must submit the modified plan within 60 days of the request from the Department or within 30 days if the unexpected event occurs during partial or final closure. If the amendment is considered a major modification according to the criteria in 335-14-8-.04(2) and 335-14-8-.04(3), the modification to the plan will be approved in accordance with the procedures in 335-14-6-.07(3)(d)4.

(d) Notification of partial closure and final closure.

1. The owner or operator must submit the closure plan to the Department at least 180 days prior to the date on which he expects to begin closure of the first surface impoundment, waste pile, land treatment, landfill, or drip pad unit, or final closure if it involves such a unit, whichever is earlier. The owner or operator must submit the closure plan to the Department at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace. The owner or operator must submit the closure plan to the Department at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units.

Owners or operators with approved closure plans must notify the Department in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, landfill, land treatment, or drip pad unit, or final closure of a facility involving such a unit.

Owners or operators with approved closure plans must notify the Department in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace.

Owners or operators with approved closure plans must notify the Department in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units.

2. The date when he "expects to begin closure" must be either:

(i) Within 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the Department that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements, the Director may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of 335-14-6-.07(4)(d), no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the Department that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements, the Director may approve an extension to this one-year limit.

3. The owner or operator must submit his closure plan to the Department no later than 15 days after:

(i) Termination of interim status except when a permit is issued simultaneously with termination of interim status; or

(ii) Issuance of a judicial decree or final order under AHWMMA or Section 3008 of RCRA to cease receiving hazardous wastes or close.

4. Processing of closure plan.

(i) The Department shall not approve a closure plan until it is determined to be complete. A plan is complete when the Department receives all required information identified in 335-14-6-.07.

(ii) The Department shall review for completeness every closure plan submitted for approval as required by 335-14-6-.07(3). Upon completing the review, the Department shall notify the owner or operator in writing whether the plan is complete. If the plan is incomplete, the Department:

(I) Shall list the information necessary to make the plan complete;

(II) Shall specify in the notice of deficiency a date for submitting the necessary information; and

(III) May request any information necessary to clarify, modify, or supplement previously submitted material; however, requests for items not required by rules 335-14-6-.07(2) through 335-14-6-.07(7) will not render a plan incomplete.

(iii) Once a closure plan is determined to be complete, the Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. It will also, in response to a request or at its own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The Department will give public notice of the hearing at least 30 days

before it occurs. [Public notice of the hearing may be (but is not required to be) given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.] The public comment period will automatically extend to the close of any public hearing under 335-14-6-.07(3)(d). The hearing officer may also extend the comment period by so stating at the hearing.

(iv) After considering any comments submitted during the public comment period and public hearing (if held), the Director will approve or disapprove the plan within 30 days of the close of the comment period. If the Director does not approve the plan, he shall provide the owner or operator with a detailed statement of reasons for the refusal, and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Director will approve or modify this plan in writing within 60 days of receipt. If the Director modifies the plan, this modified plan becomes the approved closure plan. The Department must assure that the approved closure plan is consistent with rules 335-14-6-.07(2) through 335-14-6-.07(7) and the applicable requirements of rules 335-14-6-.06, 335-14-6-.09(9), 335-14-6-.10(8), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), 335-14-6-.14(11), 335-14-6-.15(12), 335-14-6-.16(12), 335-14-6-.17(5), 335-14-6-.23(6), 335-14-6-.30(3), and 335-14-7-.08(4) [§ 266.103(l) of 40 CFR]. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(v) If an owner or operator fails or refuses to correct deficiencies in the closure plan, the plan may be modified by the Director and appropriate enforcement action may be taken by the Department.

(e) Removal of wastes and decontamination or dismantling of equipment.

1. Nothing in 335-14-6-.07(3) shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

(4) <u>Closure; time allowed for closure</u>.

(a) Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in 335-14-6-.07(4)(d) and (e), at a hazardous waste management unit or facility, or within 90 days after approval of the closure plan, whichever is later, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Director may approve a longer period if the owner or operator demonstrates that:

1. (i) The activities required to comply with 335-14-6-.07(4) will, of necessity, take longer than 90 days to complete; or

(ii) (I) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the facility owner or operator complies with 335-14-6-.07(4)(d) and (e); and

(II) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(III) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2. He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements.

(b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in 335-14-6-.07(4)(d) and (e), at the hazardous waste management unit or facility, or 180 days after approval of the closure plan, if that is later. The Director may approve an extension to the closure period if the owner or operator demonstrates that:

1. (i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii) (I) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in 335-14-6-.07(4)(d) and (e); and

(II) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(III) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2. He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable interim status requirements.

(c) The demonstrations referred to in 335-14-6-.07(4)(a)1. and (b)1. must be made as follows:

1. The demonstrations in 335-14-6-.07(4)(a)1. must be made at least 30 days prior to the expiration of the 90-day period in 335-14-6-.07(4)(a)1.; and

2. The demonstration in 335-14-6-.07(4)(b)1. must be made at least 30 days prior to the expiration of the 180-day period in 335-14-6-.07(4)(b), unless the owner or operator is otherwise subject to the deadlines in 335-14-6-.07(4)(d).

(d) The Director may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

1. The owner or operator submits an amended Part B Application, or a Part B Application, if not previously required and demonstrates that:

(i) The unit has the existing design capacity as indicated on the Part A Application to receive non-hazardous wastes; and

(ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under 335-14-6; and

(iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(v) The owner or operator is operating and will continue to operate in compliance with all applicable interim status requirements; and

2. The Part B Application includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under RCRA Section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under 335-14-6-.07(3)(b)7., as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

3. The Part B Application is amended, as necessary and appropriate, to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

4. The Part B Application and the demonstrations referred to in 335-14-6-.07(4)(d)1. and (d)2. are submitted to the Director no later than 180 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes or no later than 90 days after the effective date of 335-14-6-.07 in the State in which the unit is located, whichever is later.

(e) In addition to the requirements in 335-14-6-.07(4)(d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in 42 U.S.C. 3004(o)(1) and 3005(j)(1) or 42 U.S.C. 3004(o)(2) or (3) or 3005(j)(2), (3), (4), or (13) must:

1. Submit with the Part B Application:

(i) A contingent corrective measures plan; and

(ii) A plan for removing hazardous wastes in compliance with 335-14-6-.07(4)(e)2.; and

2. Remove all hazardous wastes from the unit by removing all hazardous liquids, and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

3. Removal of hazardous wastes must be completed no later than 90 days after the final receipt of hazardous wastes. The Director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

4. If a release that is a statistically significant increase (or decrease in the case of pH) in hazardous constituents over background levels is detected in accordance with the requirements in rule 335-14-6-.06, the owner or operator of the unit:

(i) Must implement corrective measures in accordance with the approved contingent corrective measures plan required by 335-14-6-.07(4)(e)1. no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(ii) May receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(iii) May be required by the Director to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

5. During the period of corrective action, the owner or operator shall provide annual reports to the Director describing the progress of the corrective action program, compile all groundwater monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

6. The Director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in 335-14-6-.07(4)(e)4., or fails to make substantial progress in implementing corrective action and achieving the facility's background levels.

7. If the owner or operator fails to implement corrective measures a required in 335-14-6-.07(4)(e)4., or if the Director determines that substantial progress has not been made pursuant to 335-14-6-.07(4)(e)6., he shall:

(i) Notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadlines in 335-14-6-.07(4)(a) and (b) and provide a detailed statement of reasons for this determination, and

(ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

(iii) If the Director receives no written comments, the decision will become final five days after the close of the comment period. The Director will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within 15 days of the final notice and that closure must begin in accordance with the deadlines in 335-14-6-.07(4)(a) and (b).

(iv) If the Director receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Director determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in 335-14-6-.07(4)(a) and (b).

(v) The final determinations made by the Director under 335-14-6-.07(4)(e)7.(iii) and (iv) are not subject to administrative appeal.

(5) Disposal or decontamination of equipment, structures, and soils.

During the partial and final closure periods, all contaminated equipment, structures, and soil must be properly disposed of, or decontaminated unless specified otherwise in 335-14-6-.09(9), 335-14-6-.10(8), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), 335-14-6-.14(11), 335-14-6-.17(5), 335-14-6-.23(6), or 335-14-6-.30(3). By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that hazardous waste in accordance with all applicable requirements of 335-14-3.

(6) Certification of closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of completion of final closure, the owner or operator must submit to the Department, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the professional engineer's certification must be furnished to the Department upon request until it releases the owner or operator from the financial assurance requirements for closure under rule 335-14-6-.08(4)(h).

(7) Survey plat.

(a) No later than the submission of the certification of closure of each hazardous waste disposal unit, an owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable requirements of 335-14-6-.07; and

(b) Where closure does not achieve the standard of unrestricted use, the owner or operator or other responsible person must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code Div. 335-5.

(8) Post-closure care and use of property.

(a) 1. Post-closure care for each hazardous waste management unit subject to the requirements of 335-14-6-.07(8) through 335-14-6-.07(11) must begin after completion of closure of the unit and continue for 30 years after that date, or the date of issuance of a post-closure permit or enforceable document [as defined in 335-14-8-.01(1)(c)7.], whichever date is later. It must consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of rules 335-14-6-.06, 335-14-6-.11, 335-14-6-.12, 335-14-6-.13, 335-14-6-.14, and 335-14-6-.23; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of rules 335-14-6-.06, 335-14-6-.11, 335-14-6-.12, 335-14-6-.13, 335-14-6-.14, and 335-14-6-.23.

2. Any time preceding closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time

during the post-closure period for a particular hazardous waste disposal unit, the Department may:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if it finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the hazardous waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility, if it finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(b) The Department may require, at partial and final closure, continuation of any of the security requirements of 335-14-6-.02(5) during part or all of the post-closure period when:

1. Hazardous wastes may remain exposed after completion of partial or final closure; or

2. Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Director finds that the disturbance:

1. Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

2. Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in 335-14-6-.07(9).

(9) Post-closure plan; amendment of plan.

(a) Written plan. By May 19, 1981, the owner or operator of a hazardous waste disposal unit must have a written post-closure plan. An owner or operator of a surface impoundment, waste pile, drip pad, or other hazardous waste management unit that intends to remove all hazardous wastes at closure must prepare a post-closure plan and submit it to the Department within 90 days of the date that the owner or operator or Department determines

that the hazardous waste management unit or facility must be closed as a landfill, subject to the requirements of 335-14-6-.07(8) through 335-14-6-.07(11).

(b) Until final closure of the facility, a copy of the most current post-closure plan must be furnished to the Department upon request, including request by mail. In addition, for facilities without approved post-closure plans, it must also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Department who is duly designated by the Department. After final closure has been certified, the person or office specified in 335-14-6-.07(9)(c)3. must keep the approved post-closure plan during the post-closure period.

(c) For each hazardous waste management unit subject to the requirements of 335-14-6-.07(9), the post-closure plan must identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

1. A description of the planned monitoring activities and frequencies at which they will be performed to comply with rules 335-14-6-.06, 335-14-6-.09, 335-14-6-.10, 335-14-6-.11, 335-14-6-.12, 335-14-6-.13, 335-14-6-.14, 335-14-6-.17, 335-14-6-.23, and 335-14-6-.30 during the post-closure care period; and

2. A description of the planned maintenance activities, and frequencies at which they will be performed to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of rules 335-14-6-.06, 335-14-6-.09, 335-14-6-.10, 335-14-6-.11, 335-14-6-.12, 335-14-6-.13, 335-14-6-.14, 335-14-6-.17, 335-14-6-.23, and 335-14-6-.30;

(ii) The function of the monitoring equipment in accordance with the requirements of rules 335-14-6-.06, 335-14-6-.09, 335-14-6-.10, 335-14-6-.11, 335-14-6-.12, 335-14-6-.13, 335-14-6-.14, 335-14-6-.17, 335-14-6-.23, and 335-14-6-.30; and

3. The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

4. For facilities subject to 335-14-6-.07(12), provisions that satisfy the requirements of 335-14-6-.07(12)(a)1. and 3.

5. For facilities where the Director has applied alternative requirements at a regulated unit under 335-14-6-.06(1)(f), and/or 335-14-6-.07(1)(d), either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

(d) Amendment of plan. The owner or operator may amend the post-closure plan any time during the active life of the facility or during the post-closure care period. An owner or operator with an approved post-closure plan must submit a written request to the Department to authorize a change to the approved plan. The written request must include a copy of the amended post-closure plan for approval by the Department.

1. The owner or operator must amend the post-closure plan whenever:

(i) Changes in operating plans or facility design affect the post-closure plan, or

(ii) Events which occur during the active life of the facility, including partial and final closures, affect the post-closure plan.

(iii) The owner or operator requests the Director to apply alternative requirements to a regulated unit under 335-14-6-.06(1)(f), and/or 335-14-6-.07(1)(d).

2. The owner or operator must amend the post-closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan.

3. An owner or operator with an approved post-closure plan must submit the modified plan to the Department at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the post-closure plan. If an owner or operator of a surface impoundment, a waste pile, or a drip pad who intended to remove all hazardous wastes at closure in accordance with 335-14-6-.11(9)(a), 335-14-6-.12(9)(a), or 335-14-6-.23(6)(a) is required to close as a landfill in accordance with 335-14-6-.14(11), the owner or operator must submit a post-closure plan within 90 days of the determination by the owner or operator or Department that the unit must be closed as a landfill. If the amendment to the post-closure plan is a major modification according to the criteria of 335-14-8-.04(2) and 335-14-8-.04(3), the modification to the plan will be approved according to the procedures in 335-14-6-.07(9)(f).

4. The Department may request modifications to the plan under the conditions described in 335-14-6-.07(9)(d)1. An owner or operator with an approved post-closure plan must submit the modified plan no later than 60 days of the request from the Department. If the amendment to the plan is considered a major modification according to the criteria in 335-14-8-.04(2) and (3), the modifications to the post-closure care plan will be approved in accordance with the procedures in 335-14-6-.07(9)(f). If the Department determines that an owner or operator of a surface impoundment, waste pile, or drip pad who intended to remove all hazardous wastes at closure must close the facility as a landfill, the owner or operator must submit a post-closure plan for approval to the Department within 90 days of the determination.

(e) The owner or operator of a facility with hazardous waste management units subject to these requirements must submit his post-closure plan to the Department at least 180 days before the date he expects to begin partial or final closure of the first hazardous waste disposal unit. The date he "expects to begin closure" of the first hazardous waste disposal unit must be either within 30 days after the date on which the hazardous waste management unit receives the known final volume of hazardous waste, or if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator must submit the post-closure plan to the Department no later than 15 days after:

1. Termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

2. Issuance of a judicial decree or final orders under the AHWMMA to cease receiving wastes or close.

(f) Processing of post-closure plan.

1. The Department shall not approve a post-closure plan until it is determined to be complete. A plan is complete when the Department receives all required information identified in 335-14-6-.07.

2. The Department shall review for completeness every post-closure plan submitted for approval as required by 335-14-6-.07(9). Upon completing the review, the Department shall notify the owner or operator in writing whether the plan is complete. If the plan is incomplete, the Department:

(i) Shall list the information necessary to make the plan complete;

(ii) Shall specify in the notice of deficiency a date for submitting the necessary information; and

(iii) May request any information necessary to clarify, modify, or supplement previously submitted material; however, requests for items not required by rules 335-14-6-.07(8) through 335-14-6-.07(11) will not render a plan incomplete.

3. Once a post-closure plan is determined to be complete, the Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice.

(i) It will also, in response to a request or at its own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a post-closure plan. The Department will give public notice of the hearing at least 30 days before it occurs. [Public notice of the hearing may be

(but is not required to be) given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.] The public comment period will automatically extend to the close of any public hearing under 335-14-6-.07(9)(f). The hearing officer may also extend the comment period by so stating at the hearing.

4. After considering any comments submitted during the public comment period and public hearing (if held), the Director will approve or disapprove the plan within 30 days of the close of the comment period. If the Director does not approve the plan, he shall provide the owner or operator with a detailed statement of reasons for the refusal, and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Director will approve or modify this plan in writing within 60 days of receipt. If the Director modifies the plan, this modified plan becomes the approved post-closure plan. The Department must assure that the approved post-closure plan is consistent with rules 335-14-6-.07(8) through 335-14-6-.07(11) and the applicable requirements of rules 335-14-6-.06, 335-14-6-.09(9), 335-14-6-.10(8), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), 335-14-6-.14(11), and 335-14-6-.23(6). A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

5. If an owner or operator fails or refuses to correct deficiencies in the post-closure plan, the plan may be modified by the Director and appropriate enforcement action may be taken by the Department.

6. The post-closure plan may be processed for approval concurrently with the closure plan required by rule 335-14-6-.07(3) at the request of the Department or the owner or operator, provided that the processing of the post-closure plan does not delay the processing, approval, or implementation of the closure plan.

(g) The post-closure plan and length of the post-closure care period may be modified any time prior to the end of the post-closure care period in either of the following two ways:

1. The owner or operator or any member of the public may petition the Department to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause, or alter the requirements of the post-closure care period based on cause.

(i) The petition must include evidence demonstrating that:

(I) The secure nature of the hazardous waste management unit or facility makes the post-closure care requirement(s) unnecessary or supports reduction of the post-closure care period specified in the current post-closure plan (e.g., leachate or groundwater monitoring results, characteristics of the wastes, application of advanced technology or alternative disposal, treatment, or re-use techniques indicate that the facility is secure), or

(II) The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(ii) These petitions will be considered by the Department only when they present new and relevant information not previously considered by the Department. Whenever the Department is considering a petition, it will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice. It will also, in response to a request or at its own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Department will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined.) After considering the comments, the Director will issue a final determination, based upon the criteria set forth in 335-14-6-.07(9)(g)1.

(iii) If the Director denies the petition, he will send the petitioner a brief written response giving a reason for the denial.

2. The Director may tentatively decide to modify the post-closure plan if he deems it necessary to prevent threats to human health and the environment. He may propose to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause or alter the requirements of the post-closure care period based on cause.

(i) The Department will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in 335-14-6-.07(9)(g)1.(ii). After considering the comments, the Director will issue a final determination.

(ii) The Director will base his final determination upon the same criteria as required for petitions under 335-14-6-.07(9)(g)1.(i). A modification of the post-closure plan may include, where appropriate, the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the Director would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.

(10) <u>Post-closure notices</u>.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a record of the type, location, and quantity of hazardous

wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator must:

1. Record, in accordance with State of Alabama law, a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under rule 335-14-6-.07; and

(iii) The survey plat and record of the type, location, and the quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by 335-14-6-.07(7) and 335-14-6-.07(10)(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Department; and

2. Submit a certification signed by the owner or operator that he has recorded the notation specified in 335-14-6-.07(10)(b)1. and a copy of the document in which the notation has been placed, to the Department.

(c) If the owner or operator or any subsequent owner of the land upon which a hazardous waste disposal unit was located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, and all contaminated structures, equipment, and soils, he must request a modification to the approved post-closure plan in accordance with the requirements of 335-14-6-.07(9)(g). The owner or operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of 335-14-6-.07(8)(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of Division 335-14. If the owner or operator is granted approval to conduct the removal activities, the owner or operator may request that the Director approve either:

1. The removal of the notation on the deed to the facility property or other instrument normally examined during title search, or

2. The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

(11) <u>Certification of completion of post-closure care</u>.

No later than 60 days after the completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Department, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and a independent registered professional engineer. Documentation supporting the professional engineer's certification must be furnished to the Department upon request until it releases the owner or operator from the financial assurance requirements for post-closure care under 335-14-6-.08(6)(h).

(12) Post-closure requirements for facilities that obtain enforceable documents in lieu of post-closure permits.

(a) Owners and operators who are subject to the requirement to obtain a post-closure permit under 335-14-8-.01(1)(c), but who obtain enforceable documents in lieu of post-closure permits, as provided under 335-14-8-.01(1)(c)7. must comply with the following requirements:

1. The requirements to submit information about the facility in 335-14-8-.02(19);

2. The requirements for facility-wide corrective action in 335-14-5-.06(12).

3. The requirements of 335-14-5-.06(2) through (11).

(b) 1. The Department, in issuing enforceable documents under 335-14-6-.07(12) in lieu of permits, will assure a meaningful opportunity for public involvement which, at a minimum, includes public notice and opportunity for public comment:

(i) When the Department becomes involved in a remediation at the facility as a regulatory or enforcement matter;

(ii) On the proposed preferred remedy and the assumptions upon which the remedy is based, in particular those related to land use and site characterization; and

(iii) At the time of a proposed decision that remedial action is complete at the facility. These requirements must be met before the Department may consider that the facility has met the requirements of 335-14-8-.01(1)(c)7., unless the facility qualifies for a modification to these public involvement procedures under 335-14-6-.07(12)(b)2. or 3.

2. If the Department determines that even a short delay in the implementation of a remedy would adversely affect human health or the environment, the Department may delay compliance with the requirements of 335-14-6-.07(12)(b)1. and implement the remedy immediately. However, the Department must assure involvement of the public at the earliest opportunity,

and, in all cases, upon making the decision that additional remedial action is not needed at the facility.

3. The Department may allow a remediation initiated prior to October 22, 1998 to substitute for corrective action required under a post-closure permit even if the public involvement requirements of 335-14-6-.07(12)(b)1. have not been met so long as the Department assures that notice and comment on the decision that no further remediation is necessary to protect human health and the environment takes place at the earliest reasonable opportunity after October 22, 1998.

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335-14-6-.08 Financial Requirements.

(1) Applicability.

(a) The requirements of 335-14-6-.08(3), (4), (8), and (9) apply to owners and operators of all hazardous waste facilities, except as provided otherwise in 335-14-6-.08(1) or in 335-14-6-.01(1).

(b) The requirements of 335-14-6-.08(5) and (6) apply only to owners and operators of:

1. Disposal facilities;

2. Tank systems that are required under 335-14-6-.10(8) to meet the requirements for landfills; and

3. Containment buildings that are required under rule 335-15-6-.30(3) to meet the requirements for landfills; and

4. Other hazardous waste management units which are unable to demonstrate closure by removal.

(c) Except for the requirements to provide and update cost estimates, as described in 335-14-6-.08(3), 335-14-6-.08(5), the State of Alabama and the Federal government are exempt from the requirements of 335-14-6-.08.

(2) [Reserved]

(3) Cost estimate for closure.

(a) The owner or operator must have a detailed written estimate in a format specified by the Department, in current dollars, of the cost of closing the facility in accordance with the requirements in 335-14-6-.07(2) through 335-14-6-.07(6) and applicable closure requirements of 335-14-6-.09(9), 335-14-6-.10(8), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), 335-14-6-.14(11), 335-14-6-.15(12), 335-14-6-.16(12), 335-14-6-.17(5), 335-14-6-.23(6), and 335-14-6-.30(3).

1. The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan [see 335-14-6-.07(3)(b)]; and

2. The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02.) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

3. The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under 335-14-6-.07(4)(d), facility structures or equipment, land or other facility assets associated with the facility at the time of partial or final closure.

4. The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under 335-14-6-.07(4)(d), that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-6-.08(4). For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Department as specified in 335-14-6-.08(4)(e)5. The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in 335-14-6-.08(3)(b)1. and (b)2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after a revision has been made to the closure plan which increases the cost of closure. If the owner or operator has an approved closure plan, the closure cost estimate must be revised no later than 30 days after the Department has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in 335-14-6-.08(3)(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with 335-14-6-.08(3)(a) and (c) and, when this estimate has been adjusted in accordance with 335-14-6-.08(3)(b), the latest adjusted closure cost estimate.

(4) Financial assurance for closure. By the effective date of these regulations, an owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in 335-14-6-.08(4)(a) through (e).

(a) Closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by establishing a closure trust fund which conforms to the requirements of 335-14-6-.08(4)(a) and submitting an originally signed duplicate of the trust agreement to the Department. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-5-.08(12)(a), and the trust agreement must be accompanied by a formal certification of acknowledgment [for example, see 335-14-5-.08(12)(a)2.]. Schedule A of the trust agreement must be updated and an originally signed duplicate must be submitted to the Department within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

3. Payments into the trust fund must be made annually by the owner or operator over the 8 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period". The payments into the closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in 335-14-6-.08(4)(a)5. The initial payment must be at least equal to the amount determined according to the schedule set out in 335-14-6-.08(4)(a)3.(ii)(I) through (a)3.(ii)(VIII).

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. Payments must be made according to the following schedule:

(I) If the remaining operating life of the facility is one year, 100% of the current closure cost estimate must be paid initially;

(II) If the remaining operating life of the facility is two years, 50% of the current closure cost estimate must be paid each of the two years;

(III) If the remaining operating life of the facility is three years, 34% of the current closure cost estimate must be paid initially and 33% of the current closure cost estimate must be paid each of the two subsequent years;

(IV) If the remaining operating life of the facility is four years, 25% of the current closure cost estimate must be paid each of the four years;

(V) If the remaining operating life of the facility is five years, 20% of the current closure cost estimate must be paid each of the five years;

(VI) If the remaining operating life of the facility is six years, 20% of the current closure cost estimate must be paid each of the first four years and 10% of the current closure cost estimate must be paid each of the two subsequent years;

(VII) If the remaining operating life of the facility is seven years, 20% of the current closure cost estimate must be paid each of the first three years and 10% of the current closure cost estimate must be paid each of the four subsequent years; and

(VIII) If the remaining operating life of the facility is eight years or longer, 20% of the current closure cost estimate must be paid each of the first two years and 10% of the current closure cost estimate must be paid each of the six subsequent years;

(iii) Following the initial payment, all subsequent annual payments must reconcile any difference between the actual value of the trust fund and the required value of the trust fund. The required value of the trust fund accounts for adjustments to the closure-cost estimate made in accordance with 335-14-6-.08(3), and may be calculated by determining the value of the trust fund if the current payment and all previous payments were made using the current closure-cost estimate.

4. The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in 335-14-6-.08(4)(a)3.

5. If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in 335-14-6-.08(4), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in 335-14-6-.08(4)(a)3.

6. After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in 335-14-6-.08(4) to cover the difference.

7. If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current closure cost estimate.

8. If an owner or operator substitutes other financial assurance as specified in 335-14-6-.08(4) for all or part of the trust fund, he may submit a written request to the Department for release of the amount in excess of the current closure cost estimate covered by the trust fund.

9. Within 60 days after receiving a request from the owner or operator for release of funds as specified in 335-14-6-.08(4)(a)7. or (a)8., the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

10. After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with 335-14-6-.08(4)(h), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Department does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

11. The Department will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(4) in accordance with 335-14-6-.08(4)(h).

(b) Surety bond guaranteeing payment into a closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by obtaining a surety bond which conforms to the requirements of 335-14-6-.08(4)(b) and submitting the bond to the Department. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(b).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-6-.08(4) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-6-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of 335-14-6-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-6-.08(4)(a).

(II) Updating of Schedule A of the trust agreement [see 335-14-5-.08(12)(a)] to show current closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in 335-14-6-.08(4), and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current closure cost estimate, except as provided in 335-14-6-.08(4)(f).

7. Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(4) to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(4) in accordance with 335-14-6-.08(4)(h).

(c) Closure letter of credit.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-6-.08(4)(c) and submitting the letter to the Department. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. The wording of the letter of credit must be identical to the wording specified in 335-14-5-.08(12)(d).

3. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-6-.08(4) must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in 335-14-6-.08(4)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-6-.08(4), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-6-.08(4)(a);

(II) Updating of Schedule A of the trust agreement [see 335-14-5-.08(12)(a)] to show current closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA or Alabama Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current closure cost estimate, except as provided in 335-14-6-.08(4)(f).

7. Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(4) to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be

reduced to the amount of the current closure cost estimate following written approval by the Department.

8. Following a final administrative determination pursuant to the AHWMMA that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so, the Department may draw on the letter of credit.

9. If the owner or operator does not establish alternate financial assurance as specified in 335-14-6-.08(4) and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department will draw on the letter of credit. The Department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in 335-14-6-.08(4) and obtain written approval of such assurance from the Department.

10. The Department will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(4) in accordance with 335-14-6-.08(4)(h).

(d) Closure insurance.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by obtaining closure insurance which conforms to the requirements of 335-14-6-.08(4)(d) and submitting an originally signed certificate of such insurance to the Department. By the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Department or establish other financial assurance as specified in 335-14-6-.08(4). At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama, and must not be captive insurance as defined in 335-14-1-.02 unless the requirements of 335-14-6-.08(4)(d)1.(ii) are met.

(i) The use of insurance to demonstrate financial assurance for closure and post-closure care pertains exclusively to those insurance policies underwritten by commercial property and casualty insurers (primary or excess and surplus lines), through which, in the insurance contract, the financial burden for closure and post-closure care is transferred to the third-party insurer. Except as provided in 335-14-6-.08(4)(d)1.(ii), the third-party insurer

must assume financial responsibility for this accepted risk, using its own pool of resources that is independent, separate, and unrelated to that of the insured (owner or operator). The use of insurance policies underwritten by captive insurers therefore is prohibited.

(ii) Captive insurance may be used for closure insurance only when the facility provides annual documentation to the Department that the owner or operator is in compliance with the requirements of rule 335-14-6-.08(4)(e).

2. The wording of the certificate of insurance must be identical to the wording specified in 335-14-6-.08(6)(e).

3. The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in 335-14-6-.08(4)(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4. The closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

5. After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Department will instruct the insurer to make reimbursements in such amounts as the Department specifies in writing if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with 335-14-6-.08(4)(h), that the owner or operator is no longer required to maintain financial assurance for final closure of the particular facility. If the Department does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

6. The owner or operator must maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in 335-14-6-.08(4)(d)10. Failure to pay the premium, without substitution of alternate financial assurance as specified in 335-14-6-.08(4), will constitute a significant violation of these regulations,

warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of a notice of future cancellation, termination or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7. Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8. The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Department deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Department or a court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

9. Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(4) to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Department.

10. The Department will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(4) in accordance with 335-14-6-.08(4)(h).

(e) Financial test and corporate guarantee for closure.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by demonstrating that he passes a financial test as specified in 335-14-6-.08(4)(e). To pass this test the owner or operator must meet the criteria of either 335-14-6-.08(4)(e)1.(i) or (e)1.(ii):

(i) The owner or operator must have:

(I) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates.

2. The phrase "current closure and post-closure cost estimates" as used in 335-14-6-.08(4)(e)1. refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer [335-14-5-.08(12)(f) and (g)].

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. The owner or operator may obtain an extension of the time allowed for submission of the documents specified in 335-14-6-.08(4)(e)3. if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Department. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and current cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in 335-14-6-.08(4)(e)3.; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

5. After the initial submission of items specified in 335-14-6-.08(4)(e)3., the owner or operator must send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-6-.08(4)(e)3.

6. If the owner or operator no longer meets the requirements of 335-14-6-.08(4)(e)1., he must send notice to the Department of intent to establish alternate financial assurance as specified in 335-14-6-.08(4). The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

7. The Department, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-6-.08(4)(e)1., require reports of financial condition at any time from the owner or operator in addition to those specified in 335-14-6-.08(4)(e)3. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of 335-14-6-.08(4)(e)1., the owner or operator must provide alternate financial assurance as specified in 335-14-6-.08(4) within 30 days after notification of such a finding.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements [see 335-14-6-.08(4)(e)3.(ii)]. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in 335-14-6-.08(4) within 30 days after notification of the disallowance.

9. The owner or operator is no longer required to submit the items specified in 335-14-6-.08(4)(e)3. when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(4); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(4) in accordance with 335-14-6-.08(4)(h).

10. An owner or operator may meet the requirements of 335-14-6-.08(4) by obtaining a written guarantee, hereafter referred to as "corporate guarantee". The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-6-.08(4)(e)1. through 8. and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in rule 335-14-5-.08(12)(h). The certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-6-.08(4)(e)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or

operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other interim status permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in 335-14-6-.08(4)(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in 335-14-6-.08(4) and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-6-.08(4) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit and insurance. The mechanisms must be as specified in 335-14-6-.08(4)(a) through (d), except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as a standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for closure of the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-6-.08(4) to meet the requirements of 335-14-6-.08(4) for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA or Alabama Identification Number, name, address and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Release of the owner or operator from the requirements of 335-14-6-.08(4). Within 60 days after receiving certification from the owner or operator and an independent professional engineer that final closure has been completed in accordance with the approved closure plan, the Department will notify the owner or operator in writing that he is no longer required by 335-14-6-.08(4) to maintain financial assurance for final closure of the facility, unless the Department has reason to believe that final closure has not been in accordance with the approved closure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

(5) Cost estimate for post-closure care.

(a) The owner or operator of a hazardous waste disposal unit or other hazardous waste management unit which is unable to demonstrate closure by removal must have a detailed written estimate in a format specified by the Department, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure requirements of 335-14-6-.07(8) through 335-14-6-.07(11), 335-14-6-.11(9), 335-14-6-.12(9), 335-14-6-.13(11), and 335-14-6-.14(11).

1. The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor subsidiary of the owner or operator. (See definition of parent corporation in 335-14-1-.02.)

2. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under 335-14-6-.07(8). Unless expressly extended or shortened by the Department in writing, the post-closure care period shall be assumed to be thirty years for the purposes of calculating the post-closure cost estimate.

(b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 335-14-6-.08(6). For owners or operators using the financial test or corporate guarantee, the post-closure care cost estimate must be updated for inflation no later than 30 days after the close of the firm's fiscal year and before submission of updated information to the Department as specified in 335-14-6-.08(6)(e)5. The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in 335-14-6-.08(5)(b)1. and (5)(b)2. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

1. The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the post-closure cost estimate no later than 30 days after a revision to the post-closure plan which increases the cost of post-closure care. If the owner or operator has an approved post-closure plan, the post-closure cost estimate must be revised no later than 30 days after the Department has approved the request to modify the plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in 335-14-6-.08(5)(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility and throughout the post-closure care period: the latest post-closure cost estimate prepared in accordance with 335-14-6-.08(5)(a) and 335-14-6-.08(5)(c) and, when this estimate has been adjusted in accordance with 335-14-6-.08(5)(b), the latest adjusted post-closure cost estimate.

(6) Financial assurance for post-closure care. By the effective date of these regulations, an owner or operator of a facility with a hazardous waste disposal unit must establish financial assurance for post-closure care of the disposal unit(s).

(a) Post-closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(6) by establishing a post-closure trust fund which conforms to the requirements of 335-14-6-.08(6)(a) and submitting an originally signed duplicate of the trust agreement to the Department. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

2. The wording of the trust agreement must be identical to the wording specified in 335-14-5-.08(12)(a), and the trust agreement must be accompanied by a formal certification of acknowledgment [for example, see 335-14-5-.08(12)(a)2.]. Schedule A of the trust agreement must be updated, and an originally signed duplicate must be submitted to the Department, within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

3. Payments into the trust fund must be made annually by the owner or operator over the 8 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter. The owner or operator of a post-closure facility must make annual payments into the fund over a term of eight years beginning on the effective date of these regulations. This period is hereafter referred to as the "pay-in period". The payments into the post-closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in 335-14-6-.08(6)(a)5. The first payment must be at least equal to the amount determined according to the schedule set out in 335-14-6-.08(6)(a)3.(ii)(I) through (a)3.(ii)(VIII).

(ii) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. Payments must be made according to the following schedule:

(I) If the remaining operating life of the facility is one year, 100% of the current post-closure cost estimate must be paid initially;

(II) If the remaining operating life of the facility is two years, 50% of the current post-closure cost estimate must be paid each of the two years;

(III) If the remaining operating life of the facility is three years, 34% of the current post-closure cost estimate must be paid initially and 33% of the current post-closure cost estimate must be paid each of the two subsequent years.

(IV) If the remaining operating life of the facility is four years, 25% of the current post-closure cost estimate must be paid each of the four years;

(V) If the remaining operating life of the facility is five years, 20% of the current post-closure estimate must be paid each of the five years;

(VI) If the remaining operating life of the facility is six years, 20% of the current post-closure cost estimate must be paid each of the first four years and 10% of the current cost estimate must be paid each of the two subsequent years;

(VII) If the remaining operating life of the facility is seven years, 20% of the current post-closure cost estimate must be paid each of the first three years and 10% of the current post-closure cost estimate must be paid each of the four subsequent years; and

(VIII) If the remaining operating life of the facility is eight years or longer, 20% of the current post-closure cost estimate must be paid each of the first two years and 10% of the current post-closure estimate must be paid each of the six subsequent years;

(IX) For post-closure facilities, 20% of the current post-closure cost estimate must be paid the first year and 10% of the current post-closure cost estimate must be paid each of the seven subsequent years;

(iii) Following the initial payment, all subsequent annual payments must reconcile any difference between the actual value of the trust fund and the required value of the trust fund. The required value of the trust fund accounts for adjustments to the post-closure cost estimate made in accordance with 335-14-6-.08(5), and may be calculated by determining the value of the

trust fund if the current payment and all previous payments were made using the current post-closure cost estimate.

4. The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in 335-14-6-.08(6)(a)3.

5. If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in 335-14-6-.08(6), his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in 335-14-6-.08(6)(a)3.

6. After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility and throughout the post-closure period, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in 335-14-6-.08(6) to cover the difference.

7. During the operating life of the facility and throughout the post-closure period, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current post-closure cost estimate.

8. If an owner or operator substitutes other financial assurance as specified in 335-14-6-.08(6) for all or part of the trust fund, he may submit a written request to the Department for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

9. Within 60 days after receiving a request from the owner or operator for release of funds as specified in 335-14-6-.08(6)(a)7. or (a)8., the Department will approve or disapprove the request for release. If the Department approves the release of fund, it will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

10. Following the completion of the pay-in period, the Department may approve a release of funds if the owner or operator demonstrates to the Department that the value of the trust fund exceeds the remaining cost of post-closure care.

11. Following the completion of the pay-in period, an owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure expenditures by submitting itemized

bills to the Department. Within 60 days after receiving bills for post-closure care activities, the Department will instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Department does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

12. The Department will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(6) in accordance with 335-14-6-.08(6)(h).

(b) Surety bond guaranteeing payment into a post-closure trust fund.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(6) by obtaining a surety bond which conforms to the requirements of 335-14-6-.08(6)(b) and submitting the bond to the Department. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

2. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(b).

3. The owner or operator who uses a surety bond to satisfy the requirements of 335-14-6-.08(6) must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in 335-14-6-.08(6)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of 335-14-6-.08(6), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-6-.08(6)(a).

(II) Updating of Schedule A of the trust agreement [see 335-14-5-.08(12)(a)] to show current post-closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in 335-14-6-.08(6) and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

5. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

6. The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in 335-14-6-.08(6)(f).

7. Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(6) to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Department.

8. Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

9. The owner or operator may cancel the bond if the Department has given prior written consent. The Department will provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(6) in accordance with 335-14-6-.08(6)(h).

(c) Post-closure letter of credit.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(6) by obtaining an irrevocable standby letter of credit which conforms to the requirements of 335-14-6-.08(6)(c) and submitting the letter to the Department. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. The wording of the letter of credit must be identical to the wording specified in 335-14-5-.08(12)(d).

3. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-6-.08(6) must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in 335-14-6-.08(6)(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Department with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of 335-14-6-.08(6), the following are not required by these regulations:

(I) Payments into the trust fund as specified in 335-14-6-.08(6)(a);

(II) Updating of Schedule A of the trust agreement [see 335-14-5-.08(12)(a)] to show current post-closure cost estimates;

(III) Annual valuations as required by the trust agreement; and

(IV) Notices of nonpayment as required by the trust agreement.

4. The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

5. The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

6. The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in 335-14-6-.08(6)(f).

7. Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility and throughout the post-closure care period, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(6) to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility or during the post-closure care period, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Department.

8. During the period of post-closure care, the Department may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Department that the amount exceeds the remaining cost of post-closure care.

9. Following a final administrative determination pursuant to the AHWMMA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Department may draw on the letter of credit.

10. If the owner or operator does not establish alternate financial assurance as specified in 335-14-6-.08(6) and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department will draw on the letter of credit. The Department may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension, the Department will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in 335-14-6-.08(6) and obtain written approval of such assurance from the Department.

11. The Department will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(6) in accordance with 335-14-6-.08(6)(h).

(d) Post-closure insurance.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(6) by obtaining post-closure insurance which conforms to the requirements of 335-14-6-.08(6)(d) and submitting an originally signed certificate of such insurance to the Department. By the effective date of these regulations the owner or operator must submit to the Department the certificate of insurance or establish other financial assurance as specified in 335-14-6-.08(6). At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama, and must not be captive insurance as defined in 335-14-1-.02 unless the requirements of 335-14-6-.08(6)(d)1.(ii) are met.

(i) The use of insurance to demonstrate financial assurance for closure and post-closure care pertains exclusively to those insurance policies underwritten by commercial property and casualty insurers (primary or excess and surplus lines), through which, in the insurance contract, the financial burden for closure and post-closure care is transferred to the third-party insurer. Except as provided in 335-14-6-.08(6)(d)1.(ii), the third-party insurer must assume financial responsibility for this accepted risk, using its own pool of resources that is independent, separate, and unrelated to that of the insured (owner or operator). The use of insurance policies underwritten by captive insurers therefore is prohibited.

(ii) Captive insurance may be used for post-closure insurance only when the facility provides annual documentation to the Department that the owner or operator is in compliance with the requirements of rule 335-14-6-.08(6)(e).

2. The wording of the certificate of insurance must be identical to the wording specified in 335-14-6-.08(6)(e).

3. The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in 335-14-6-.08(6)(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

4. The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

5. An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Department. Within 60 days after receiving bills for post-closure care activities, the Department will instruct the insurer to make reimbursements in those amounts as the Department

specifies in writing, if the Department determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Department does not instruct the insurer to make such reimbursements, he will provide a detailed written statement of reasons.

6. The owner or operator must maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in 335-14-6-.08(6)(d)11. Failure to pay the premium, without substitution of alternate financial assurance as specified in the paragraph, will constitute a significant violation of these regulations, warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

7. Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

8. The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Department deems the facility abandoned; or

(ii) The facility's interim status permit is terminated or revoked; or

(iii) Closure is ordered by the Department or a court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

9. Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility or during the post-closure care period, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and

submit evidence of such increase to the Department, or obtain other financial assurance as specified in 335-14-6-.08(6) to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility or during the post-closure care period, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Department.

10. Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amounts of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

11. The Department will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(6) and approved by the Department; or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(6) in accordance with 335-14-6-.08(6)(h).

(e) Financial test and corporate guarantee for post-closure care.

1. An owner or operator may satisfy requirements of 335-14-6-.08(6) by demonstrating that he passes a financial test as specified in 335-14-6-.08(6)(e). To pass this test the owner or operator must meet the criteria either of 335-14-6-.08(6)(e)1.(i) or (ii):

(i) The owner or operator must have:

(I) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(III) Tangible net worth of at least $10 million; and

(IV) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

2. The phrase "current closure and post-closure cost estimates" as used in 335-14-6-.08(6)(e)1. refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer [335-14-5-.08(12)(f)].

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the Department.

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

4. The owner or operator may obtain an extension of the time allowed for submission of the documents specified in 335-14-6-.08(6)(e)3. if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Department. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address and the current cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's latest complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in 335-14-6-.08(6)(e)3.; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

5. After the initial submission of items specified in 335-14-6-.08(6)(e)3., the owner or operator must send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-6-.08(6)(e)3.

6. If the owner or operator no longer meets the requirements of 335-14-6-.08(6)(e)1., he must send notice to the Department of intent to establish alternate financial assurance as specified in 335-14-6-.08(6). The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

7. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-6-.08(6)(e)1., require reports of financial condition at any time from the owner or operator in addition to those specified in 335-14-6-.08(6)(e)3. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of 335-14-6-.08(6)(e)1., the owner or operator must provide alternate financial assurance as specified in 335-14-6-.08(6) within 30 days after notification of such a finding.

8. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements [see 335-14-6-.08(6)(e)3.(ii)]. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in 335-14-6-.08(6) within 30 days after notification of the disallowance.

9. During the period of post-closure care, the Department may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Department that the amount of the cost estimate exceeds the remaining cost of post-closure care.

10. The owner or operator is no longer required to submit the items specified in 335-14-6-.08(6)(e)3. when:

(i) An owner or operator substitutes alternate financial assurance as specified in 335-14-6-.08(6); or

(ii) The Department releases the owner or operator from the requirements of 335-14-6-.08(6) in accordance with 335-14-6-.08(6)(h).

11. An owner or operator may meet the requirements of 335-14-6-.08(6) by obtaining a written guarantee, hereafter referred to as "corporate guarantee". The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-6-.08(6)(e)1. through 9. and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in rule 335-14-5-.08(12)(h). A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-6-.08(6)(e)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in 335-14-6-.08(6)(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in 335-14-6-.08(6) and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of 335-14-6-.08(6) by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds,

surety bonds, letters of credit and insurance. The mechanisms must be as specified in 335-14-6-.08(6)(a) through (d), except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Department may use any or all of the mechanisms to provide for post-closure care of the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in 335-14-6-.08(6) to meet the requirements of 335-14-6-.08(6) for more than one facility. Evidence of financial assurance submitted to the Department must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Release of the owner or operator from the requirements of 335-14-6. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Department will notify the owner or operator in writing that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Department has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

(7) <u>Use of a mechanism for financial assurance of both closure and post-closure care</u>. An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test or corporate guarantee that meets the specifications for the mechanism in both 335-14-6-.08(4) and (6). The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

(8) <u>Liability requirements</u>.

(a) Coverage for sudden accidental occurrences. An owner or operator of a treatment, storage, or disposal facility, or a group of such

facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in 335-14-6-.08(8)(a)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-6-.08(8)(a).

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in 335-14-5-.08(12)(i). The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Department. If requested by the Department, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama.

2. An owner or operator may meet the requirements of 335-14-6-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-6-.08(8)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-6-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a surety bond for liability coverage as specified in 335-14-6-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-6-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts

required by 335-14-6-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under 335-14-6-.08(8)(a), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-6-.08(8)(a)1. through (a)6.; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under 335-14-6-.08(8)(a)1. through (a)6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-6-.08(8)(a)1. through (a)6.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, or land treatment facility or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of 335-14-6-.08(8) may combine the required per-occurrence coverage levels for sudden and non-sudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and non-sudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and non-sudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in 335-14-6-.08(8)(b)1., 2., 3., 4., 5., or 6.:

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in 335-14-6-.08(8)(b).

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in 335-14-5-.08(12)(i). The wording of the certificate of insurance must be identical to the wording specified in 335-14-5-.08(12)(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Department. If requested by the Department, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the State of Alabama.

2. An owner or operator may meet the requirements of 335-14-6-.08(8) by passing a financial test or using the guarantee for liability coverage as specified in 335-14-6-.08(8)(f) and (g).

3. An owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a letter of credit for liability coverage as specified in 335-14-6-.08(8)(h).

4. An owner or operator may meet the requirements of 335-14-6-.08(8) obtaining a surety bond for liability coverage as specified in 335-14-6-.08(8)(i).

5. An owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a trust fund for liability coverage as specified in 335-14-6-.08(8)(j).

6. An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by 335-14-6-.08(8). If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under 335-14-6-.08(8)(b), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

7. An owner or operator shall notify the Department in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in 335-14-6-.08(8)(b)1. through (b)6.; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under 335-14-6-.08(8)(b)1. through (b)6.; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under 335-14-6-.08(8)(b)1. through (b)6.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Department that the levels of financial responsibility required by 335-14-6-.08(8)(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Department. The request for a variance must be submitted in writing to the Department. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Department to determine a level of financial responsibility other than that required by 335-14-6-.08(8)(a) or (b). The Department will process a variance request as if it were a permit modification request under 335-14-8-.04(2)(a)5. and subject to the procedures of 335-14-8-.08(3). Notwithstanding any other provision, the Department may hold a public hearing at its discretion or whenever it finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to grant a variance.

(d) Adjustments by the Department. If the Department determines that the levels of financial responsibility required by 335-14-6-.08(8)(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Department may adjust the level of financial responsibility required under 335-14-6-.08(8)(a) or (b) as may be necessary to protect human health and the environment. This adjusted level will be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, it may require that an owner or operator of the facility comply with 335-14-6-.08(8)(b). An owner or operator must furnish to the Department within a reasonable time, any information which the Department requests to determine whether cause exists for such adjustments of level or type of coverage. The Department will process an adjustment of the level of required coverage as if it were a permit

modification under 335-14-8-.04(2)(a)5. and subject to the procedures of 335-14-8-.08(3). Notwithstanding any other provision, the Department may hold a public hearing at its discretion or whenever it finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to adjust the level or type of required coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Department will notify the owner or operator in writing that he is no longer required by 335-14-6 to maintain liability coverage for that facility, unless the Department has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(8) by demonstrating that he passes a financial test as specified in 335-14-6-.08(8)(f). To pass this test the owner or operator must meet the criteria of 335-14-6-.08(8)(f)1.(i) or (ii):

(i) The owner or operator must have:

(I) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(II) Tangible net worth of at least $10 million; and

(III) Assets in the United States amounting to either:

I. At least 90 percent of his total assets; or

II. At least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(I) A current rating for his most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's, or Aaa, Aa, A or Baa as issued by Moody's; and

(II) Tangible net worth of at least $10 million; and

(III) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(IV) Assets in the United States amounting to either:

I. At least 90 percent of his total assets; or

II. At least six times the amount of liability coverage to be demonstrated by this test.

2. The phrase "amount of liability coverage" as used in 335-14-6-.08(8)(f)1. refers to the annual aggregate amounts for which coverage is required under 335-14-6-.08(8)(a) and (b).

3. To demonstrate that he meets this test, the owner or operator must submit the following three items to the Department:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in 335-14-5-.08(12)(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by 335-14-5-.08(4)(f), 335-14-5-.08(6)(f), 335-14-6-.08(4)(e), and 335-14-6-.08(6)(e), and liability coverage, he must submit the letter specified in 335-14-5-.08(12)(g) to cover both forms of financial responsibility; a separate letter as specified in 335-14-5-.08(12)(f) is not required;

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(I) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(II) In connection with that procedure, no matters came to his attention which caused him to believe that the specific data should be adjusted.

4. After the initial submission of items specified in 335-14-6-.08(8)(f)3., the owner or operator must send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in 335-14-6-.08(8)(f)3.

5. The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of 335-14-6-.08(8)(f)1., require from the owner or operator at any time current updates of reports of financial condition specified in 335-14-6-.08(8)(f)3.

6. If the owner or operator no longer meets the requirements of 335-14-6-.08(8)(f)1., he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in 335-14-6-.08(8). Evidence of a liability coverage must be submitted to the Department within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

7. The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements [see 335-14-6-.08(8)(f)3.(ii)]. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in 335-14-6-.08(8) within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

1. Subject to 335-14-6-.08(8)(g)2., an owner or operator may meet the requirements of 335-14-6-.08(8) by obtaining a written guarantee, hereinafter referred to as "guarantee". The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in 335-14-6-.08(8)(f)1. through (f)6. The wording of the guarantee must be identical to the wording specified in 335-14-5-.08(12)(h)2. A certified copy of the guarantee must accompany the items sent to the Department as specified in 335-14-6-.08(8)(f)3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

2. A guarantee may be used to satisfy the requirements of 335-14-6-.08(8) only if the Attorney General(s) or insurance commissioner(s) of the State in which the guarantor is incorporated and the State(s) in which the facility(ies) covered by the guarantee is (are) located has (have) submitted a written statement to the Department that a guarantee executed as described in 335-14-6-.08(8) and 335-14-5-.08(12)(h)2. is a legally valid and enforceable obligation in that State.

(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of 335-14-6-.08(8) only if the Attorneys General or Insurance Commissioners of

(I) The State in which the guarantor is incorporated, and

(II) Each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in 335-14-6-.08(8) and 335-14-5-.08(12)(h)2. is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of 335-14-6-.08(8) only if

(I) The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business, and if

(II) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to the Department that a guarantee executed as described in 335-14-6-.08(8) and 335-14-5-.08(12)(h)2. is a legally valid and enforceable obligation in that State.

(h) Letter of credit for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(8) by obtaining an irrevocable standby letter of credit that conforms to the requirements of 335-14-6-.08(8)(h) and submitting a copy of the letter of credit to the Department.

2. The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

3. The wording of the letter of credit must be identical to the wording specified in rule 335-14-5-.08(12)(k).

4. An owner or operator who uses a letter of credit to satisfy the requirements of 335-14-6-.08(8) may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

5. The wording of the standby trust fund must be identical to the wording specified in rule 335-14-5-.08(12)(n).

(i) Surety bond for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(8) by obtaining a surety bond that conforms to the requirements of 335-14-6-.08(8)(i) and submitting a copy of the bond to the Department.

2. The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

3. The wording of the surety bond must be identical to the wording specified in 335-14-5-.08(12)(l).

4. A surety bond may be used to satisfy the requirements of 335-14-6-.08(8) only if the Attorneys General or Insurance Commissioners of:

(i) The State in which the surety is incorporated, and

(ii) Each State in which a facility covered by the surety bond is located have submitted a written statement to the Department that a surety bond executed as described in 335-14-6-.08(8) and 335-14-5-.08(12)(l) is a legally valid and enforceable obligation in that State.

(j) Trust fund for liability coverage.

1. An owner or operator may satisfy the requirements of 335-14-6-.08(8) by establishing a trust fund that conforms to the requirements of 335-14-6-.08(8)(j) and submitting an originally signed duplicate of the trust agreement to the Department.

2. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

3. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of 335-14-6-.08(8). If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in 335-14-6-.08(8) to cover the difference. For purposes of 335-14-6-.08(8)(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by 335-14-6-.08(8), less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

4. The wording of the trust fund must be identical to the wording specified in 335-14-5-.08(12)(m).

(k) [Reserved]

(9) Incapacity of owners or operators, guarantors or financial institutions.

(a) An owner or operator must notify the Department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in 335-14-6-.08(4)(e) and 335-14-6-.08(6)(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee [335-14-5-.08(12)(h)].

(b) An owner or operator who fulfills the requirements of 335-14-6-.08(4), (6), or (8) by obtaining a trust fund, surety bond, letter of credit or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

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335-14-6-.09 Use and Management of Containers.

(1) Applicability.

The requirements of 335-14-6-.09 apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as 335-14-6-.01 provides otherwise.

(2) Condition of containers.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container

that is in good condition, or manage the waste in some other way that complies with the requirements of 335-14-6.

(3) Compatibility of waste with container.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

(4) Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

(c) Containers having a capacity greater than 30 gallons must not be stacked over two containers high.

(5) Inspections.

The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration of containers and the containment system caused by corrosion or other factors. The owner or operator must also note the number and capacity of hazardous waste containers present. These inspections must be documented in accordance with rule 335-14-6-.02(6)(d). [Comment: See 335-14-6-.09(2) for remedial action required if deterioration or leaks are detected.]

(6) Containment. Container storage areas must meet the following requirements:

(a) Container storage areas must have a containment system that is designed and operated in accordance with 335-14-6-.09(6)(b), except as otherwise provided by 335-14-6-.09(6)(c).

(b) A containment system must be designed and operated as follows:

1. A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

2. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

3. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

4. Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-6-.09(6)(b)3. to contain any run-on which might enter the system; and

5. Spilled or leaked waste must be removed from the sump or collection area in a timely manner not to exceed 24 hours after detection. Accumulated precipitation must be removed in as timely a manner necessary to prevent overflow of the collection system.

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by 335-14-6-.09(6)(b), except as provided by 335-14-6-.09(6)(d) or provided that:

1. The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2. The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by 335-14-6-.09(6)(b):

1. F020, F021, F022, F023, F026, and F027;

2. [Reserved]

(7) <u>Special requirements for ignitable or reactive waste</u>.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

(8) <u>Special requirements for incompatible wastes</u>.

(a) Incompatible wastes, or incompatible wastes and materials (see 335-14-6-Appendix V for examples) must not be placed in the same container, unless 335-14-6-.02(8)(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see 335-14-6-Appendix V for examples), unless 335-14-6-.02(8)(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated

from the other materials or protected from them by means of a dike, berm, wall, or other device.

(9) Closure and post-closure care.

(a) At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed.

(b) If the owner or operator cannot remove or decontaminate waste required by rule 335-14-6-.09(9)(a), then the owner or operator must close the containment system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills [335-14-6-.14(11)].

(c) [Reserved]

(d) [Reserved]

(10) Air emission standards.

The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of 335-14-6-.27, 335-14-6-.28, and 335-14-6-.29.

Author: Stephen C. Maurer; James W. Hathcock; C. Edwin Johnston; Michael B. Champion; Vernon H. Crockett.
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335-14-6-.10 Tank Systems.

(1) Applicability. The requirements of 335-14-6-.10 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste, except as otherwise provided in 335-14-6-.10(1)(a), (b), and (c) or in rule 335-14-6-.01.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements of 335-14-6-.10(4). To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in rule 335-14-1-.02(2).

(b) Tank systems, including sumps, as defined in rule 335-14-1-.02, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in 335-14-6-.10(4)(a).

(c) Tanks, sumps, and other collection devices used in conjunction with drip pads, as defined in 335-14-1-.02 and regulated under rule 335-14-6-.23, must meet the requirements of 335-14-6-.10.

(2) Assessment of existing tank system's integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of 335-14-6-.10(4), the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in 335-14-6-.10(2)(c), the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by a qualified professional engineer in accordance with 335-14-8-.02(2)(d) that attests to the tank system's integrity by January 12, 1988.

(b) This assessment must determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

1. Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

2. Hazardous characteristics of the waste(s) that have been or will be handled;

3. Existing corrosion protection measures;

4. Documented age of the tank system, if available. (Otherwise, an estimate of age); and

5. Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For nonenterable underground tanks, this assessment must consist of a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects;

(ii) For other than nonenterable underground tanks and for ancillary equipment, this assessment must be either a leak test, as described above, or an internal inspection and/or other tank integrity examination certified by a qualified professional engineer in accordance with 335-14-8-.02(2)(d) that addresses cracks, leaks, corrosion, and erosion.

[**Note:** The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII,

"Atmospheric and Low-Pressure Storage Tanks", 4th Edition, 1981, may be used, where applicable, as guidelines in conducting the integrity examination of an other than nonenterable underground tank system.]

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986 must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with 335-14-6-.10(2)(a), a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of 335-14-6-.10(7).

(3) Design and installation of new tank systems or components.

(a) Owners or operators of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment reviewed and certified by a qualified professional engineer in accordance with 335-14-8-.02(2)(d), attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include the following information:

1. Design standard(s) according to which the tank(s) and the ancillary equipment is or will be constructed;

2. Hazardous characteristics of the waste(s) to be handled;

3. For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(I) Soil moisture content;

(II) Soil pH;

(III) Soil sulfides level;

(IV) Soil resistivity;

(V) Structure to soil potential;

(VI) Influence of nearby underground metal structures (e.g., piping);

(VII) Stray electric current; and

(VIII) Existing corrosion-protection measures (e.g., coating, cathodic protection), and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(I) Corrosion-resistant materials of construction such as special alloys, fiberglass-reinforced plastic;

(II) Corrosion-resistant coating (such as epoxy or fiberglass) with cathodic protection (e.g., impressed current or sacrificial anodes); and

(III) Electrical isolation devices such as insulating joints and flanges.

[**Note:** The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", may be used, where applicable, as guidelines in providing corrosion protection for tank systems.]

4. For underground tank system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

5. Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone; and

(iii) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or a qualified professional engineer, either of whom is trained and experienced in the proper installation of tank systems, must inspect the system or component for the presence of any of the following items:

1. Weld breaks;

2. Punctures;

3. Scrapes of protective coatings;

4. Cracks;

5. Corrosion; or

6. Other structural damage or inadequate construction or installation.

All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components and piping that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed into use.

(e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

[**Note:** The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems", or ANSI Standard B31.3, "Petroleum Refinery Piping", and ANSI Standard B31.4 "Liquid Petroleum Transportation Piping System", may be used, where applicable, as guidelines for proper installation of piping systems.]

(f) The owner or operator must provide the type and degree of corrosion protection necessary, based on the information provided under 335-14-6-.10(3)(a)3. to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of 335-14-6-.10(3)(b) through (f) to attest that the tank system was properly designed and installed and that repairs, pursuant to 335-14-6-.10(3)(b) and (d) were performed. These written statements must also include the certification statement as required in 335-14-8-.02(2)(d).

(4) <u>Containment and detection of releases</u>.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the

requirements of 335-14-6-.10(4) must be provided [except as provided in 335-14-6-.10(4)(f) and (g)]:

1. For all new and existing tank systems or components, prior to their being put into service;

2. For tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

(b) Secondary containment systems must be:

1. Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and

2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of 335-14-6-.10(4)(b), secondary containment systems must be at a minimum:

1. Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic);

2. Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift;

3. Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours; and

4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

[**Note:** If the collected material is a hazardous waste under 335-14-2, it is subject to management as a hazardous waste in accordance with all

applicable requirements of 335-14-3 through 335-14-6. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of Sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTWs), it is subject to the requirements of Section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302.]

(d) Secondary containment for tanks must include one or more of the following devices:

1. A liner (external to the tank);

2. A vault;

3. A double-walled tank; or

4. An equivalent device as approved by the Department.

(e) In addition to the requirements of 335-14-6-.10(4)(b), (c), and (d), secondary containment systems must satisfy the following requirements:

1. External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

(v) Provided with an impermeable interior coating or lining if a concrete (or other porous or pervious material) liner is used. The interior coating or lining must be compatible with the stored waste and prevent migration of the waste into the concrete.

2. Vault systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints (if any);

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(I) Meets the definition of ignitable waste under 335-14-2-.03(2); or

(II) Meets the definition of reactive waste under 335-14-2-.03(4) and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3. Double-walled tanks must be:

(i) Designed as an integral structure (i.e., an inner tank within an outer shell) so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the Department, and the Department concurs, that the existing leak detection technology or site conditions will not allow detection of a release within 24 hours.

[**Note:** The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tank" may be used as guidelines for aspects of the design of underground steel double-walled tanks.]

(f) Ancillary equipment must be provided with full secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of 335-14-6-.10(4)(b) and (c) except for:

1. Aboveground piping (exclusive of flanges, joints, valves, and connections) that is visually inspected for leaks on a daily basis;

2. Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

3. Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

4. Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements of 335-14-6-.10(4) if the Department finds, as a result of a demonstration by the owner or operator, either: that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to groundwater or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with 335-14-6-.10(4)(g)2., be exempted from the secondary containment requirements of 335-14-6-.10(4). Application for a variance as allowed in 335-14-6-.10(4)(g) does not waive compliance with the requirements of rule 335-14-6-.10 for new tank systems.

1. In deciding whether to grant a variance based on a demonstration of equivalent protection of groundwater and surface water, the Department will consider:

(i) The nature and quantity of the waste;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils between the tank system and groundwater; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to groundwater or surface water.

2. In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the Department will consider:

(i) The potential adverse effects on groundwater, surface water, and land quality taking into account:

(I) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(II) The hydrogeological characteristics of the facility and surrounding land,

(III) The potential for health risks caused by human exposure to waste constituents,

(IV) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(V) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on groundwater quality, taking into account:

(I) The quantity and quality of groundwater and the direction of groundwater flow,

(II) The proximity and withdrawal rates of water in the area,

(III) The current and future uses of groundwater in the area, and

(IV) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(I) The quantity and quality of groundwater and the direction of groundwater flow,

(II) The patterns of rainfall in the region,

(III) The proximity of the tank system to surface waters,

(IV) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(V) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(I) The patterns of rainfall in the region, and

(II) The current and future uses of the surrounding land.

3. The owner or operator of a tank system for which a variance from secondary containment had been granted in accordance with the requirements of 335-14-6-.10(4)(g)1., at which a release of hazardous waste has occurred

from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of 335-14-6-.10(7), except 335-14-6-.10(7)(d); and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(I) Enable the tank system, for which the variance was granted, to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release, and

(II) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with 335-14-6-.10(4)(g)3.(ii), comply with the requirements of 335-14-6-.10(8)(b).

4. The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of 335-14-6-.10(4)(g)1., at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), must:

(i) Comply with the requirements of 335-14-6-.10(7)(a), (b), (c), and (d);

(ii) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if groundwater has been contaminated, the owner or operator must comply with the requirements of 335-14-6-.10(8)(b); and

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of 335-14-6-.10(4)(a) through (f) or reapply for a variance from secondary containment and meet the requirements for new tank systems in 335-14-6-.10(3) if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed and groundwater or surface water has not been contaminated.

(h) The following procedures must be followed in order to request a variance from secondary containment:

1. The Department must be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance

from secondary containment as allowed in 335-14-6-.10(4)(g) according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with 335-14-6-.10(4)(a); and

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation of the tank system.

2. As part of the notification, the owner or operator must also submit to the Department a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in 335-14-6-.10(4)(g)1. or (g)2.;

3. The demonstration for a variance must be completed and submitted to the Department within 180 days after notifying the Department of intent to conduct the demonstration; and

4. The Department will inform the public, through a newspaper notice, of the availability of the demonstration for a variance. The notice shall be placed in a daily or weekly major local newspaper of general circulation and shall provide at least 30 days from the date of the notice for the public to review and comment on the demonstration for a variance. The Department also will hold a public hearing, in response to a request or at its own discretion, whenever such a hearing might clarify one or more issues concerning the demonstration for a variance. Public notice of the hearing will be given at least 30 days prior to the date of the hearing and may be given at the same time as notice of the opportunity for the public to review and comment on the demonstration. These two notices may be combined.

5. The Department will approve or disapprove the request for a variance within 90 days of receipt of the demonstration from the owner or operator and will notify in writing the owner or operator and each person who submitted written comments or requested notice of the variance decision. If the demonstration for a variance is incomplete or does not include sufficient information, the 90-day time period will begin when the Department receives a complete demonstration, including all information necessary to make a final determination. If the public comment period in 335-14-6-.10(4)(h)4. is extended, the 90-day time period will be similarly extended.

(i) All tank systems, until such time as secondary containment that meets the requirements of 335-14-6-.10(4) is provided, must comply with the following:

1. For nonenterable underground tanks, a leak test that meets the requirements of 335-14-6-.10(2)(b)5. must be conducted at least annually;

2. For other than non-enterable underground tanks, and for all ancillary equipment, the owner or operator must either conduct a leak test, as

described in 335-14-6-.10(4)(i)1., or an internal inspection or other tank integrity examination by a qualified professional engineer that addresses cracks, leaks, and corrosion or erosion at least annually. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed.

[**Note:** The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refining Equipment, Chapter XIII, "Atmospheric and Low- Pressure Storage Tanks", 4th Edition, 1981, may be used, when applicable, as guidelines for assessing the overall condition of the tank system.]

3. The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with 335-14-6-.10(4)(i)1. through (i)3.

4. If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in 335-14-6-.10(4)(i)1. through (i)3., the owner or operator must comply with the requirements of 335-14-6-.10(7).

(5) General operating requirements.

(a) Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum:

1. Spill prevention controls (e.g., check valves, dry disconnect couplings);

2. Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

3. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator must comply with the requirements of 335-14-6-.10(7) if a leak or spill occurs in the tank system.

(6) Inspections.

(a) The owner or operator must inspect, where present, at least once each operating day, data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.

[**Note:** 335-14-6-.02(6)(c) requires the owner or operator to remedy any deterioration or malfunction he finds. 335-14-6-.10(7) requires the owner or operator to notify the Department and the Regional Administrator within 24 hours of confirming a release. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of a release.]

(b) Except as noted under 335-14-6-.10(6)(c), the owner or operator must inspect at least once each operating day:

1. Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

2. Aboveground portions of the tank system, if any, to detect corrosion or releases of waste; and

3. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

(c) Owners or operators of tank systems that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly those areas described in 335-14-6-.10(6)(b)(1) through (3). Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

(d) Ancillary equipment that is not provided with secondary containment, as described in 335-14-6-.10(4)(f)1. through 4., must be inspected at least once each operating day.

(e) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

1. The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and

2. All sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

[**Note:** The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85) - Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping

Systems", may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.]

(f) The owner or operator must document in the operating record of the facility an inspection of those items in 335-14-6-.10(6)(a) through (e).

(7) Response to leaks or spills and disposition of leaking or unfit-for-use tank systems. A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:

(a) Cessation of Use; prevent flow or addition of wastes. The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of waste from tank system or secondary containment system.

1. If the release was from the tank system, the owner or operator must, within 24 hours after detection of the leak or, if the owner or operator demonstrates that it is not possible, at the earliest practicable time remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

2. If the release was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The owner or operator must immediately conduct a visual inspection of the release and, based upon that inspection:

1. Prevent further migration of the leak or spill to soils or surface water; and

2. Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

1. Any release to the environment, except as provided in 335-14-6-.10(7)(d)2., must be reported to the Department within 24 hours of detection.

Report of a release pursuant to 40 CFR Part 302 does not satisfy this requirement.

2. A leak or spill of hazardous waste that is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned up is exempted from the requirements of 335-14-6-.10(7)(d).

3. Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Department:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(iii) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Department as soon as they become available;

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

1. Unless the owner or operator satisfies the requirements of 335-14-6-.10(7)(e)2. through 4., the tank system must be closed in accordance with 335-14-6-.10(8).

2. If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

3. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

4. If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner or operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of 335-14-6-.10(4) before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of 335-14-6-.10(7)(f) are satisfied. If a component is replaced to comply with the requirements of 335-14-6-.10(7)(e), that component must satisfy the requirements for new tank systems or components in 335-14-6-.10(3) and 335-14-6-.10(4). Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must

be provided with secondary containment in accordance with 335-14-6-.10(4) prior to being returned to use.

(f) Certification of major repairs. If the owner or operator has repaired a tank system in accordance with 335-14-6-.10(7)(e), and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner or operator has obtained a certification by a qualified professional engineer in accordance with 335-14-8-.02(2)(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification is to be placed in the operating record and maintained until closure of the facility.

[**Note:** The Department may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under RCRA Section 3004(v), 3008(h), or 7003(a), or the AHWMMA, respectively, requiring corrective action or such other response as deemed necessary to protect human health or the environment.]

[**Note:** See 335-14-6-.02(6)(c) for the requirements necessary to remedy a failure. Also, 40 CFR Part 302 requires the owner or operator to notify the National Response Center of a release of any "reportable quantity".]

(8) Closure and post-closure care.

(a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in rules 335-14-6-.07 and 335-14-6-.08. [Generators accumulating hazardous waste in tanks for 90 days or less are not required to provide a closure plan, cost estimate, or financial assurance.]

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in 335-14-6-.10(8)(a), then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills [335-14-6-.14(11)]. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in rules 335-14-6-.07 and 335-14-6-.08.

(c) [Reserved]

(d) [Reserved]

(e) If an owner or operator has a tank system which does not have secondary containment that meets the requirements of 335-14-6-.10(4)(b) through (f) and which is not exempt from the secondary containment requirements in accordance with 335-14-6-.10(4)(g), then,

1. The closure plan for the tank system must include both a plan for complying with 335-14-6-.10(8)(a) and a contingent plan for complying with 335-14-6-.10(8)(b).

2. A contingent post-closure plan for complying with 335-14-6-.10(8)(b) must be prepared and submitted as part of the permit application.

3. The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if these costs are greater than the costs of complying with the closure plan prepared for the expected closure under 335-14-6-.10(8)(a).

4. Financial assurance must be based on the cost estimates in 335-14-6-.10(8)(e)3.

5. For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under rules 335-14-6-.07 and 335-14-6-.08.

(9) Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in a tank system, unless:

1. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or 335-14-2-.03(4); and

(ii) 335-14-6-.02(8)(b) is complied with; or

2. The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or

3. The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in tanks must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection

Association's "Flammable and Combustible Liquids Code", (1977 or 1981) [incorporated by reference in rule 335-14-1-.02(2)].

(10) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank system, unless 335-14-6-.02(8)(b) is complied with.

(b) Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless 335-14-6-.02(8)(b) is complied with.

(11) Waste analysis and trial tests. In addition to performing the waste analysis required by 335-14-6-.02(4), the owner or operator must, whenever a tank system is to be used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or treat chemically a hazardous waste with a substantially different process than any previously used in that tank system:

(a) Conduct waste analyses and trial treatment or storage tests (e.g., bench-scale or pilot-plant scale tests); or

(b) Obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will meet the requirements of 335-14-6-.10(5)(a).

[**Note:** 335-14-6-.02(4) requires the waste analysis plan to include analyses needed to comply with 335-14-6-.10(9) and 335-14-6-.10(10). 335-14-6-.05(4) requires the owner or operator to place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.]

(12) Special requirements for Small Quantity Generators that accumulate hazardous waste in tanks.

(a) The requirements of 335-14-6-.10(12) apply to small quantity generators that accumulate hazardous waste in tanks for less than 180 days (or 270 days if the generator must ship the waste greater than 200 miles), and do not accumulate over 6,000 kg on-site at any time.

(b) Small quantity generators must comply with the following general operating requirements:

1. Treatment or storage of hazardous waste in tanks must comply with 335-14-6-.02(8)(b).

2. Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

3. Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

4. Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., waste feed cutoff system or by-pass system to a stand-by tank).

[**Note:** These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc.).]

(c) Except as noted in 335-14-6-.10(12)(d), small quantity generators accumulating hazardous waste in tanks must inspect, and document in accordance with rule 335-14-6-.02(6)(d), where present:

1. Discharge control equipment (e.g., waste feed cutoff systems, by-pass systems, and drainage systems) at least once each operating day, to ensure that it is in good working order;

2. Data gathered from monitoring equipment (e.g., pressure and temperature gauges) at least once each operating day to ensure that the tank is being operated according to its design;

3. The level of waste in the tank at least once each operating day to ensure compliance with 335-14-6-.10(12)(b)3.;

4. The construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and

5. The construction materials of, and the area immediately surrounding discharge confinement structures (e.g., dikes) at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

[**Note:** As required by 335-14-6-.02(6)(c), the owner or operator must remedy any deterioration or malfunction he finds.]

(d) Small quantity generators accumulating hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly, where applicable, the areas identified in 335-14-6-.10(12)(c)1. through 5. Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

(e) Small quantity generators accumulating hazardous waste in tanks must, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures.

[**Note:** At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 335-14-2-.01(3)(c) or (d), that any solid waste removed from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 335-14-3, 335-14-4, and 335-14-6.]

(f) Small quantity generators must comply with the following special requirements for ignitable or reactive waste:

1. Ignitable or reactive waste must not be placed in a tank, unless:

(i) The waste is treated, rendered, or mixed before or immediately after placement in a tank so that:

(I) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or 335-14-2-.03(4); and

(II) 335-14-6-.02(8)(b) is complied with; or

(ii) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(iii) The tank is used solely for emergencies.

2. The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code", (1977 or 1981) [incorporated by reference in rule 335-14-1-.02(2)].

(g) Small quantity generators must comply with the following special requirements for incompatible wastes:

1. Incompatible wastes, or incompatible wastes and materials (see 335-14-6-Appendix V for examples) must not be placed in the same tank, unless 335-14-6-.02(8)(b) is complied with.

2. Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless 335-14-6-.02(8)(b) is complied with.

(13) <u>Air emission standards.</u> The owner or operator shall manage all hazardous waste placed in a tank(s) in accordance with the applicable requirements of 335-14-6-.27, 335-14-6-.28, and 335-14-6-.29.

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335-14-6-.11 Surface Impoundments.

(1) Applicability. The requirements of 335-14-6-.11 apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as 335-14-6-.01(1) provides otherwise.

(2) Design and operating requirements.

(a) The owner or operator of each new surface impoundment unit, each lateral expansion of a surface impoundment unit, and each replacement of an existing surface impoundment unit, must install two or more liners and a leachate collection and removal system above and between the liners, and operate the leachate collection and removal system, in accordance with 335-14-5-.11(2)(c), unless exempted under 335-14-5-.11(2)(d), (e), or (f).

(b) The owner or operator of each unit referred to in 335-14-6-.11(2)(a) must notify the Department at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six months of the receipt of such notice.

(c) The owner or operator of any replacement surface impoundment unit is exempt from 335-14-6-.11(2)(a) if:

1. The existing unit was constructed in accordance with the design standards of Sections 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act and the AHWMMA; and

2. There is no reason to believe that the liner is not functioning as designed.

(d) The double liner requirement set forth in 335-14-6-.11(2)(a) may be waived by the Department for any monofill if:

1. The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the EP toxicity characteristics in 335-14-2-.03(5);

2. (i) (I) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of 335-14-6-.11(2) the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of 335-14-6-.11(2)(a) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner at the closure of such impoundment the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment must comply with appropriate post-closure requirements, including but not limited to groundwater monitoring and corrective action:

(II) The monofill is located more than one-quarter mile from an "underground source of drinking water" (as that term is defined in 335-14-1-.02); and

(III) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under Division 335-14; or

(ii) The owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(e) In the case of any unit which the liner and leachate collection system has been installed pursuant to the requirements of 335-14-6-.11(2)(a) and in good faith compliance with 335-14-6-.11(2)(a) and with guidance documents governing liners and leachate collection systems under 335-14-6-.11(2)(a), no liner or leachate collection system which is different from that which was so installed pursuant to 335-14-6-.11(2)(a) will be required for such unit by the Department when issuing the first permit to such facility, except that the Department will not be precluded from requiring installation of a new liner when the Department has reason to believe that any liner installed pursuant to the requirements of 335-14-6-.11(2)(a) is leaking.

(f) A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action or a storm. Except as provided in 335-14-6-.11(2)(b), there must be at least 60 centimeters (two feet) of freeboard.

(g) A freeboard level less than 60 centimeters (two feet) may be maintained if the owner or operator obtains certification by a qualified professional engineer that alternate design features or operating plans will, to the best of his knowledge and opinion, prevent overtopping of the dike. The

certification, along with a written identification of alternate design features or operating plans preventing overtopping must be maintained at the facility.

(h) Surface impoundments that are newly subject to 335-14-6-.11 due to the promulgation of additional listings or characteristics for the identification of hazardous waste must be in compliance with 335-14-6-.11(2)(a), (c), and (d) not later than 48 months after the promulgation of the additional listing or characteristic. This compliance period shall not be cut short as the result of the promulgation of land disposal prohibitions under 335-14-9 or the granting of an extension to the effective date of a prohibition pursuant to rule 335-14-9-.01(5), within this 48-month period.

(3) Action leakage rate.

(a) The owner or operator of surface impoundment units subject to 335-14-6-.11(2)(a) must submit a proposed action leakage rate to the Director when submitting the notice required under 335-14-6-.11(2)(b). Within 60 days of receipt of the notification, the Director will: establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in 335-14-6-.11(3); or extend the review period for up to 60 days. If no action is taken by the Director before the original 60 or extended 120 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Director shall approve an action leakage rate for surface impoundment units subject to 335-14-6-.11(2)(a). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(c) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under 335-14-6-.11(7)(b), to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and if the unit closes in accordance with 335-14-6-.11(9)(a)2., monthly during the post-closure care period when monthly monitoring is required under 335-14-6-.11(7)(b).

(4) Containment system.

All earthen dikes must have a protective cover, such as grass, shale or rock, to minimize wind and water erosion and to preserve their structural integrity.

(5) Response actions.

(a) The owner or operator of surface impoundment units subject to 335-14-6-.11(2)(a) must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-6-.11(5)(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedance within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipts should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-6-.11(5)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-6-.11(5)(b)3., 4., and 5., the owner or operator must:

1. (i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(6) Waste analysis and trial tests.

(a) In addition to the waste analyses required by 335-14-6-.02(4), whenever a surface impoundment is to be used to:

1. Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

2. Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator must, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with 335-14-6-.02(8)(b).

(7) Monitoring and inspection.

(a) The owner or operator must inspect:

1. The freeboard level at least once each operating day to ensure compliance with 335-14-6-.11(3); and

2. The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration or failures in the impoundment.

3. These inspections must be documented in an inspection log as required by rule 335-14-6-.02(6)(d).

(b) 1. An owner or operator required to have a leak detection system under 335-14-6-.11(2)(a) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

2. After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

3. "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump

dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with 335-14-6-.11(3)(a).

(8) [Reserved]

(9) Closure and post-closure care.

(a) At closure, the owner or operator must:

1. Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies; or

2. Close the impoundment and provide post-closure care for a landfill under rule 335-14-6-.07 and 335-14-6-.14(11), including the following:

(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(I) Provide long-term minimization of the migration of liquids through the closed impoundment;

(II) Function with minimum maintenance;

(III) Promote drainage and minimize erosion or abrasion of the cover;

(IV) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(V) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(VI) To meet the requirements of 335-14-6-.11(9)(a)2.(iii) the final cover must meet the requirements of 335-14-6-.14(11)(b)1. through 3., unless rule 335-14-6-.14(11)(c) applies.

(b) In addition to the requirements of rule 335-14-6-.07 and 335-14-6-.14(11), during the post-closure care period, the owner or operator of a surface impoundment in which wastes, waste residues or contaminated materials remain after closure in accordance with the provisions of 335-14-6-.11(9)(a)2. must:

1. Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

2. Maintain and monitor the leak detection system in accordance with 335-14-5-.11(2)(c)2.(iv) and 335-14-5-.11(2)(c)3., and 335-14-6-.11(7)(b) and comply with all other applicable leak detection system requirements of 335-14-6;

3. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of rule 335-14-6-.06; and

4. Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(10) Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment unless the waste and impoundment satisfy all applicable requirements of 335-14-9, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-6-.02(8)(b) is complied with; or

(b) 1. The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

2. The owner or operator obtains a certification from a qualified professional engineer or qualified chemist that to the best of his knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

3. The certification and basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

(11) Special requirements for incompatible wastes.

Incompatible wastes and materials (see 335-14-6-Appendix V for examples) must not be placed in the same surface impoundment, unless 335-14-6-.02(8)(b) is complied with.

(12) Air emission standards.

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of 335-14-6-.27, 335-14-6-.28, and 335-14-6-.29.

Author: Stephen C. Maurer; James W. Hathcock; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Theresa A. Maines.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
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Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; January 1, 1993; January 5, 1995; March 27, 1998; April 13, 2001; March 15, 2002; April 17, 2003; April 4, 2006; April 3, 2007; April 3, 2012.

335-14-6-.12 Waste Piles.

(1) Applicability. The requirements of 335-14-6-.12 apply to owners and operators of facilities that treat or store hazardous waste in piles, except as 335-14-6-.01(1) provides otherwise. Alternately, a pile of hazardous waste may be managed as a landfill under rule 335-14-6-.14.

(2) Protection from wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind must cover or otherwise manage the pile so that wind dispersal is controlled.

(3) Waste analysis.

In addition to the waste analyses required by rule 335-14-6-.02(4), the owner or operator must analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless:

(a) The only wastes the facility receives which are amenable to piling are compatible with each other; or

(b) The waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted must be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis must include a visual comparison of color and texture.

(4) Containment.

(a) The owner or operator must visually inspect the waste pile at least weekly for run-off and leachate and document the inspections in an inspection log as required by rule 335-14-6-.02(6)(d). If leachate or run-off from a pile is a hazardous waste, then either:

1. The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

2. The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

3. The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

4. Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b) 1. The pile must be protected from precipitation and run-on by some other means; and

2. No liquids or wastes containing free liquids may be placed in the pile.

(5) Design and operating requirements.

(a) The owner or operator of each new waste pile unit on which construction commences after January 29, 1992, each lateral expansion of a waste pile unit on which construction commences after July 29, 1992, and each such replacement of an existing waste pile unit that is to commence reuse after July 29, 1992 must install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with 335-14-5-.12(2)(c), unless exempted under 335-14-5-.12(2)(d), (e), or (f); and must comply with the procedures of 335-14-6-.12(2)(b). "Construction commences" is as defined in 335-14-1-.02 under "existing facility".

(b) [Reserved]

(6) Action leakage rate.

(a) The owner or operator of waste pile units subject to 335-14-6-.12(5) must submit a proposed action leakage rate to the Director when submitting the notice required under 335-14-6-.12(5). Within 60 days of receipt of the notification, the Director will: establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in 335-14-6-.12(6); or extend the review period for up to 30 days. If no action is taken by the Director before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Director shall approve an action leakage rate for waste pile units subject to 335-14-6-.12(5). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction,

operation, and location of the LDS, waste and leachate characteristics, likelihood and amount of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(c) To determine if the action leakage rate has been exceeded, the owner or operator must covert the weekly flow rate from the monitoring data obtained under 335-14-6-.12(11), to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period.

(7) Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in a pile, unless the waste and pile satisfy all applicable requirements of Chapter 335-14-9, and:

1. Addition of the waste to an existing pile:

(i) Results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under 335-14-2-.03(2) and (4); and

(ii) Complies with 335-14-6-.02(8)(b); or

2. The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(8) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see 335-14-6-Appendix V for examples) must not be placed in the same pile, unless 335-14-6-.02(8)(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste must not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with 335-14-6-.02(8)(b).

(9) Closure and post-closure care.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures and equipment as required in 335-14-6-.12(9)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills [335-14-6-.14(11)].

(10) Response actions.

(a) The owner or operator of waste pile units subject to 335-14-6-.12(5) must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-6-.12(10)(b).

(b) If the flow rate into the leak determination system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedance within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipts should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-6-.12(10)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-6-.12(10)(b)3., 4., and 5., the owner or operator must:

1. (i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(11) Monitoring and inspection.

(a) An owner or operator required to have a leak detection system under 335-14-6-.12(5) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(b) [Reserved]

Author: Stephen C. Maurer; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Theresa A. Maines.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.
Amended: October 12, 1983; September 29, 1986; August 24, 1989; December 6, 1990; January 1, 1993, January 5, 1995; April 13, 2001; March 15, 2002; April 17, 2003; April 4, 2006; April 3, 2007.

335-14-6-.13 Land Treatment.

(1) Applicability.

The requirements of 335-14-6-.13 apply to owners and operators of hazardous waste land treatment facilities, except as 335-14-6-.01(1) provides otherwise.

(2) [Reserved]

(3) General operating requirements.

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by degradation, transformation or immobilization processes occurring in or on the soil.

(b) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 25-year storm.

(c) The owner or operator must design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 25-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

(4) Waste analysis.

In addition to the waste analyses required by 335-14-6-.02(4), before placing a hazardous waste in or on a land treatment facility, the owner or operator must:

(a) Determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in Table 1 of 335-14-2-.03(5) that cause a waste to exhibit the Characteristic of toxicity;

(b) For any waste listed in rule 335-14-2-.04, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that the constituent is not present;

(c) For any waste listed in rule 335-14-2-.04, determine the concentrations of any substances which caused the waste to be listed as a hazardous waste; and

(d) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that the constituent is not present.

(5) [Reserved]

(6) [Reserved]

(7) Food chain crops.

(a) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and will be grown in the future, must notify the Department within 60 days after the effective date of 335-14-6.

(b) 1. Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under 335-14-6-.13(4)(b):

(i) Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g., by grazing); or

(ii) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

2. The information necessary to make the demonstration required by 335-14-6-.13(7)(b)1. must be kept at the facility and must, at a minimum:

(i) Be based on tests for the specific waste and application rates being used at the facility; and (ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of 335-14-6-.13(7)(c)1.(i) through (iii) or all requirements of 335-14-6-.13(7)(c)2.(i) through (iv) are met.

1. (i) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(ii) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time period	**Annual Cd application rate (kg/ha)**
Present to Dec. 31, 1986	1.25
Beginning Jan. 1, 1987	0.5

(iii) The cumulative application of cadmium from waste does not exceed the levels in either 335-14-6-.13(7)(c)1.(iii)(I) or (II).

(I)

	Maximum cumulative application (kg/ha)	
Soil cation exchange capacity (meq/100g)	**Background soil pH less than 6.5**	**Background soil pH greater than 6.5**
Less than 5	5	5
5 to 15	5	10
Greater than 15	5	20

(II) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below: Provided, that the pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food chain crops are grown.

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5
5 to 15	10
Greater than 15	20

2. (i) The only food chain crop produced is animal feed.

(ii) The pH of the waste and soil mixture is 6.5 or greater at the time of the waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with 335-14-6-.13(7)(c)2.

(8) [Reserved]

(9) Unsaturated zone (zone of aeration monitoring).

(a) The owner or operator must have in writing, and must implement, an unsaturated zone monitoring plan which is designed to:

1. Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and

2. Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring must be conducted before or in conjunction with the monitoring required under 335-14-6-.13(9)(a)1.

(b) The unsaturated zone monitoring plan must include, at a minimum:

1. Soil monitoring using soil cores, and

2. Soil-pore water monitoring using devices such as lysimeters.

(c) To comply with 335-14-6-.13(9)(a)1., the owner or operator must demonstrate in his unsaturated zone monitoring plan that:

1. The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

2. The number of soil and soil-pore water samples to be taken is based on the variability of:

(i) The hazardous waste constituents [as identified in 335-14-6-.13(4)(a) and (4)(b)] in the waste and in the soil; and

(ii) The soil type(s); and

3. The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to groundwater, and soil permeability.

(d) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under 335-14-6-.13(4)(a) and (4)(b).

(10) Recordkeeping.

The owner or operator must include hazardous waste application dates and rates in the operating record required under 335-14-6-.05(4).

(11) Closure and post-closure.

(a) In the closure plan under 335-14-6-.07(3) and the post-closure plan under 335-14-6-.07(9), the owner or operator must address the following objectives and indicate how they will be achieved:

1. Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;

2. Control of the release of contaminated run-off from the facility into surface water;

3. Control of the release of airborne particulate contaminants caused by wind erosion; and

4. Compliance with 335-14-6-.13(7) concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of 335-14-6-.13(9)(a):

1. Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

2. The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

3. Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to groundwater, surface water, and drinking water sources);

4. Climate, including amount, frequency, and pH of precipitation;

5. Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

6. Unsaturated zone monitoring information obtained under 335-14-6-.13(9); and

7. Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following methods in addressing the closure and post-closure care objectives of 335-14-6-.13(9)(a):

1. Removal of contaminated soils;

2. Placement of a final cover, considering:

(i) Functions of the cover (e.g., infiltration control and wind erosion control); and

(ii) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

3. Monitoring of groundwater.

(d) In addition to the requirements of rule 335-14-6-.07, during the closure period the owner or operator of a land treatment facility must:

1. Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

2. Maintain the run-on control system required under 335-14-6-.13(3)(b);

3. Maintain the run-off management system required under 335-14-6-.13(3)(c); and

4. Control wind dispersal or particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with 335-14-6-.07(6), when closure is completed the owner or operator may submit to the Department certification

both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of 335-14-6-.07(8), during the post-closure care period the owner or operator of a land treatment unit must:

1. Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

2. Restrict access to the unit as appropriate for its post-closure use;

3. Assure that growth of food chain crops complies with 335-14-6-.13(7); and

4. Control wind dispersal of hazardous waste.

(12) Special requirement for ignitable or reactive waste.

The owner or operator must not apply ignitable or reactive waste to the treatment zone unless the waste and treatment zone meet all applicable requirements of Chapter 335-14-9, and:

(a) The waste is immediately incorporated into the soil so that:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-6-.02(8)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(13) Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and material (see 335-14-6-Appendix V for examples), must not be placed in the same land treatment area, unless 335-14-6-.02(8)(b) is complied with.

Author: Stephen C. Maurer; C. Edwin Johnston.
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335-14-6-.14 Landfills.

(1) Applicability. The requirements of 335-14-6-.14 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as

335-14-6-.01(1) provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by 335-14-6-.14.

(2) Design and operating requirements.

(a) The owner or operator of each new landfill unit, each lateral expansion of a landfill unit, and each replacement of an existing landfill unit, must install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal system, in accordance with 335-14-5-.14(2)(b).

(b) The owner or operator of each unit referred to in 335-14-6-.14(2)(a) must notify the Department at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice must file a Part B application within six months of the receipt of such notice.

(c) The owner or operator of any replacement landfill unit is exempt from 335-14-6-.14(2)(a) if:

1. The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act and AHWMMA; and

2. There is no reason to believe that the liner is not functioning as designed.

(d) [Reserved]

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of 335-14-6-.14(2)(a) and in good faith compliance with 335-14-6-.14(2)(a) and with guidance documents governing liners and leachate collection systems under 335-14-6-.14(2)(a), no liner or leachate collection system which is different from that which was so installed pursuant to 335-14-6-.14(2)(a) will be required for such unit by the Department when issuing the first permit to such facility, except that the Department will not be precluded from requiring installation of a new liner when the Department has reason to believe that any liner installed pursuant to the requirements of 335-14-6-.14(2)(a) is leaking.

(f) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(g) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(h) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(i) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(3) Action leakage rate.

(a) The owner or operator of landfill units subject to 335-14-6-.14(2)(a) must submit a proposed action leakage rate to the Director when submitting the notice required under 335-14-6-.14(2)(b). Within 60 days of receipt of the notification, the Director will: establish an action leakage rate either as proposed by the owner or operator or modified using the criteria in 335-14-6-.14(3); or extend the review period for up to 30 days. If no action is taken by the Director before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Director shall approve an action leakage rate for landfill units subject to 335-14-6-.14(2)(a). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g. slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(c) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under 335-14-6-.14(5) to an average daily flow rate (gallons per acre per day) for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and monthly during the post-closure period when monthly monitoring is required under 335-14-6-.14(5)(b).

(4) Response actions.

(a) The owner or operator of landfill units subject to 335-14-6-.14(2)(a) must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in 335-14-6-.14(4)(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

1. Notify the Director in writing of the exceedance within seven days of the determination;

2. Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3. Determine to the extent practicable the location, size, and cause of any leak;

4. Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

5. Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6. Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in 335-14-6-.14(4)(b)3., 4., and 5., the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in 335-14-6-.14(4)(b)3., 4., and 5., the owner or operator must:

1. (i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2. Document why such assessments are not needed.

(5) Monitoring and inspection.

(a) An owner or operator required to have a leak detection system under 335-14-6-.14(2)(a) must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(b) After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be

recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(c) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with 335-14-6-.14(3)(a).

(6) [Reserved]

(7) [Reserved]

(8) [Reserved]

(9) [Reserved]

(10) Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required in 335-14-6-.05(4):

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

(11) Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

1. Provide long-term minimization of migration of liquids through the closed landfill;

2. Function with minimum maintenance;

3. Promote drainage and minimize erosion or abrasion of the cover;

4. Accommodate settling and subsidence so that the cover's integrity is maintained; and

5. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) To meet the requirements in rule 335-14-6-.14(11)(a), the final cover system must contain (as a minimum):

1. A vegetated top cover. The top cover must:

(i) Be at least 24 inches thick;

(ii) Support vegetation that will effectively minimize erosion;

(iii) Have a final top slope between three and five percent;

(iv) Have a final side slope which does not exceed 25 percent; and

(v) Have a surface drainage system capable of conducting run-off across the cap without erosion occurring.

2. Drainage layer. The drainage layer must:

(i) Be at least 12 inches thick with a saturated hydraulic conductivity not less than 10^{-3} cm/sec;

(ii) Have a final bottom slope of at least two percent;

(iii) Be overlain by a graded granular or synthetic fabric filter to prevent clogging;

(iv) Be designed so that discharge flows freely in the lateral direction to minimize the head on the low permeability layer.

3. Low Permeability Layer. The low permeability layer must consist of two components, a synthetic liner and a compacted soil liner.

(i) The synthetic liner component must:

(I) Consist of at least a 20 mil synthetic membrane;

(II) Be protected from damage above the membrane by at least six inches of bedding material;

(III) Have a final upper slope of at least two percent;

(IV) Be located wholly below the average frost penetration;

(V) Lay directly on the compacted soil liner;

(ii) The compacted soil component must:

(I) Have 24 inches of soil recompacted to a saturated hydraulic conductivity of not more than 10^{-7} cm/sec;

(II) Have the soil emplaced in lifts not exceeding six inches before compaction to maximize the effectiveness of compaction.

(c) If the owner or operator can demonstrate to the satisfaction of the Department that an alternative cover system meets or exceeds the performance standards set forth in rule 335-14-6-.14(11)(a) and (b), the alternative final cover system may be used.

(d) After final closure, the owner or operator must comply with all post-closure requirements contained in 335-14-6-.07(8) through (11) including maintenance and monitoring throughout the post-closure care period. The owner or operator must:

1. Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion or other events;

2. Continue to operate the leachate collection and removal systems until leachate is no longer detected;

3. Maintain and monitor the leak detection system in accordance with 335-14-5-.14(2)(b)3.(iv), (2)(b)4., and 335-14-6-.14(5)(b), and comply with all other applicable leak detection system requirements of 335-14-6;

4. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of rule 335-14-6-.06;

5. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

6. Protect and maintain surveyed benchmarks used in complying with 335-14-6-.14(10).

7. The owner or operator must visually inspect the final cover to identify evidence of settling, subsidence, erosion, or other events expected to limit the integrity or effectiveness. These inspections must be documented in an inspection log, as required by rule 335-14-6-.02(6)(d). These inspections must be performed at least weekly.

(12) [Reserved]

(13) Special requirements for ignitable or reactive waste.

(a) Except as provided in 335-14-6-.14(13)(b), and in 335-14-6-.14(17), ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meet all applicable requirements of Chapter 335-14-9, and:

1. The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

2. 335-14-6-.02(8)(b) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in rule 335-14-9-.04, ignitable wastes in containers may be landfilled without meeting the requirements of 335-14-6-.14(13)(a) provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

(14) Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see 335-14-6-Appendix V for examples) must not be placed in the same landfill cell, unless 335-14-6-.02(8)(b) is complied with.

(15) Special requirements for bulk and containerized liquids.

(a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

(b) Containers holding free liquids must not be placed in a landfill unless:

1. All free standing liquid:

(i) Has been removed by decanting or other methods;

(ii) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) Has been otherwise eliminated; or

2. The container is very small, such as an ampule; or

3. The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4. The container is a lab pack as defined in 335-14-6-.14(17) and is disposed of in accordance with 335-14-6-.14(17).

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in rule 335-14-1-.02(2).

(d) [Reserved]

(e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in 335-14-6-.14(15)(f)1.; materials that pass one of the tests in 335-14-6-.14(15)(f)2.; or materials that are determined by the Department to be nonbiodegradable through the rule 335-14-1-.03 petition process.

1. Nonbiodegradable sorbents.

(i) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

(ii) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

2. Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)--Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--Standard Practice for Determining Resistance of Plastics to Bacteria; or

(iii) The sorbent material is determined to be non-biodegradable under OECD test 301B: [CO_2 Evolution (Modified Sturm Test)].

(f) The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the Department, or the Department determines that:

1. The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

2. Placement in such owner or operator's landfill will not present a risk of contamination of any "underground source of drinking water" (as that term is defined in 335-14-1-.02).

(16) Special requirements for containers.

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

(17) Disposal of small containers of hazardous waste in overpacked drums (lab packs). Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178 and 179), if those regulations specify a particular inside container for the waste;

(b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416 liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with 335-14-6-.14(15)(f), to completely sorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and sorbent material;

(c) The sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with 335-14-6-.02(8)(b);

(d) Incompatible wastes, as defined in 335-14-1-.02, must not be placed in the same outside container; and

(e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in 335-14-2-.03(4)(a)5., must be treated or rendered non-reactive prior to packaging in accordance with 335-14-6-.14(17)(a) through (d). Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with 335-14-6-.14(17)(a) through (d) without first being treated or rendered non-reactive.

(f) Such disposal is in compliance with the requirements of Chapter 335-14-9. Persons who incinerate lab packs according to the requirements in 335-14-9-.04(3) may use fiber drums in place of metal outer containers. Such fiber drums must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in 335-14-6-.14(17)(b).

Author: Stephen C. Maurer; James W. Hathcock; Amy P. Zachry; Michael B. Champion; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-17 and 22-30-16.
History: November 19, 1980.
Amended: April 9, 1986; September 29, 1986; February 15, 1988; August 24, 1989; December 6, 1990; January 1, 1993; January 5, 1995; March 28, 1997; April 13, 2001; March 15, 2002; May 27, 2004; April 4, 2006; April 3, 2007; May 27, 2008; March 31, 2009; March 30, 2010; April 3, 2012; March 31, 2017.

335-14-6-.15 Incinerators.

(1) Applicability.

(a) The requirements of 335-14-6-.15 apply to owners or operators of hazardous waste incinerators (as defined in 335-14-1-.02), except as 335-14-6-.01(1) provides otherwise.

(b) Integration of the MACT standards.

1. Except as provided by 335-14-6-.15(1)(b)2. and (b)3., the standards of 335-14-6 no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 335-3-11-.06(56) by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under 335-3-11-.06(56) documenting compliance with the requirements of 335-3-11-.06(56).

2. The MACT standards do not replace the closure requirements of 335-14-6-.15(12) (Closure) or the applicable requirements of 335-14-6-.01 through 6-.08, 6-.28, and 6-.29.

3. 335-14-6-.15(6) generally prohibiting burning of hazardous waste during startup and shutdown remains in effect if the facility elects to comply with 335-14-8-.15(1)(b)1.(i) to minimize emissions of toxic compounds from startup and shutdown.

(c) Owners or operators of incinerators burning hazardous waste are exempt from all of the requirements of 335-14-6-.15, except 335-14-6-.15(12) (Closure), provided that the owner or operator has documented in writing, that the waste would not reasonably be expected to contain any of the hazardous

constituents listed in 335-14-2-Appendix VIII, and such documentation is retained at the facility, if the waste to be burned is:

1. Listed as a hazardous waste in rule 335-14-2-.04 solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

2. Listed as a hazardous waste in rule 335-14-2-.04 solely because it is reactive (Hazard Code R) for characteristics other than those listed in 335-14-2-.03(4)(a)4. and 5., and will not be burned when other hazardous wastes are present in the combustion zone; or

3. A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under rule 335-14-2-.03. or

4. A hazardous waste solely because it possesses the reactivity characteristics described 335-14-2-.03(4)(a)1., 2., 3., 6., 7. or 8., and will not be burned when other hazardous wastes are present in the combustion zone.

(2) Waste analysis.

In addition to the waste analyses required by 335-14-6-.02(4), the owner or operator must sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

(3) [Reserved]

(4) [Reserved]

(5) [Reserved]

(6) General operating requirements.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

(7) [Reserved]

(8) Monitoring and inspections.

The owner or operator must conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments which relate to combustion and emission control must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions must be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls; and

(b) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shut-down controls and system alarms must be checked to assure proper operation.

(9) [Reserved]

(10) [Reserved]

(11) [Reserved]

(12) Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters and scrubber sludges) from the incinerator.

(13) Interim status permitted incinerators burning particular hazardous wastes.

(a) Owners or operators of incinerators subject to 335-14-6-.15 may burn EPA Hazardous Wastes F020, F021, F022, 023, F026, or F027 if they receive a certification from the Department that they can meet the performance standards of rule 335-14-5-.15 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify an incinerator:

1. The owner or operator will submit an application to the Department containing applicable information in 335-14-8-.02(10) and 335-14-8-.06(2) demonstrating that the incinerator can meet the performance standards in rule 335-14-5-.15 when they burn these wastes;

2. The Department will issue a tentative decision as to whether the incinerator can meet the performance standards in rule 335-14-5-.15. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The Department will accept comment on the tentative decision for 60

days. The Department also may hold a public hearing upon request or at its discretion.

3. After the close of the public comment period, the Department will issue a decision whether or not to certify the incinerator.

Author: Stephen C. Maurer; Michael B. Champion; C. Edwin Johnston; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: July 19, 1982.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; January 25, 1992; April 13, 2001; March 15, 2002; April 17, 2003; April 4, 2006; April 3, 2012.

335-14-6-.16 Thermal Treatment.

(1) Applicability.

The requirements of 335-14-6-.16 apply to owners or operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as 335-14-6-.01(1) provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of rule 335-14-6-.15 if the unit is an incinerator, and rule 335-14-7-.08, if the unit is a boiler or an industrial furnace as defined in 335-14-1-.02.

(2) [Reserved]

(3) [Reserved]

(4) General operating requirements.

Before adding hazardous waste, the owner or operator must bring his thermal treatment process to steady state (normal) conditions of operation - including steady state operating temperature - using auxiliary fuel or other means, unless the process is a non-continuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

(5) [Reserved]

(6) Waste analysis.

In addition to the waste analyses required by 335-14-6-.02(4), the owner or operator must sufficiently analyze any waste which he has not previously treated in his thermal process to enable him to establish steady state (normal) or other appropriate (for a non-continuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

(7) [Reserved]

(8) Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

1. Existing instruments which relate to temperature and emission control (if an emission control device is present) must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions must be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.

2. The stack plume (emissions), where present, must be observed visually at least hourly for normal appearance (color and opacity). The operator must immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

3. The complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) must be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

(9) [Reserved]

(10) [Reserved]

(11) [Reserved]

(12) Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment.

(13) Open burning; waste explosives.

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot

safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives must do so in accordance with the following table and in a manner that does not threaten human health or the environment.

Pound of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 to 100	204 meters (670 feet).
101 to 1,000	380 meters (1,250 feet).
1,001 to 10,000	530 meters (1,730 feet).
10,001 to 30,000	690 meters (2,260 feet).

(14) Interim status permitted thermal treatment devices burning particular hazardous wastes.

(a) Owners or operators of thermal treatment devices subject to 335-14-6-.16 may burn EPA hazardous wastes F020, F021, F022, F023, F026, or F027 if they receive a certification from the Department that they can meet the performance standards of rule 335-14-5-.15 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

1. The owner or operator will submit an application to the Department containing the applicable information in 335-14-8-.02(10) and 335-14-8-.06(2) demonstrating that the thermal treatment unit can meet the performance standards in rule 335-14-5-.15 when they burn these wastes.

2. The Department will issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in rule 335-14-5-.05. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The Department will accept comment on the tentative decision for 60 days. The Department also may hold a public hearing upon request or at its discretion.

3. After the close of the public comment period, the Department will issue a decision whether or not to certify the thermal treatment unit.

Author: Stephen C. Maurer; C. Edwin Johnston; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.
Amended: April 9, 1986, August 24, 1989; April 13, 2001; April 4, 2006; April 3, 2012; March 26, 2013.

335-14-6-.17 Chemical, Physical, and Biological Treatment.

(1) Applicability.

The requirements of 335-14-6-.17 apply to owners and operators of facilities which treat hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments and land treatment facilities, except as 335-14-6-.01(1) provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments and land treatment facilities must be conducted in accordance with rules 335-14-6-.10, 335-14-6-.11 and 335-14-6-.13 respectively.

(2) General operating requirements.

(a) Chemical, physical, or biological treatment of hazardous waste must comply with 335-14-6-.02(8)(b).

(b) Hazardous wastes or treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode or otherwise fail before the end of its intended life.

(c) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment must be equipped with a means to stop this inflow (e.g., a waste feed cut-off system or by-pass system to a standby containment device).

(3) Waste analysis and trial tests.

In addition to the waste analysis required by 335-14-6-.02(4), whenever:

(a) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or

(b) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste; the owner or operator must, before treating the different waste or using the different process or equipment:

1. Conduct waste analyses and trial treatment tests (e.g. bench scale or pilot plant scale tests); or

2. Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that the proposed treatment will meet all applicable requirements of 335-14-6-.17(2)(a) and (b).

(4) Inspections.

(a) The owner or operator of a treatment facility must inspect, where present:

1. Discharge control and safety equipment (e.g., waste feed cut-off systems, by-pass systems, drainage systems and pressure relief systems) at least once each operating day, to ensure that it is in good working order;

2. Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

3. The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

4. The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

(5) Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.

(6) Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a treatment process or equipment unless:

1. The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 335-14-2-.03(2) or (4); and

(ii) 335-14-6-.02(8)(b) is complied with; or

2. The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

(7) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials (see 335-14-6-Appendix V for examples) must not be placed in the same treatment process or equipment, unless 335-14-6-.02(8)(b) is complied with.

(b) Hazardous waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless 335-14-6-.02(8)(b) is complied with.

Author: Stephen C. Maurer; C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.

Amended: February 15, 1988; August 24, 1989; April 13, 2001.

335-14-6-.18 Underground Injection. [See Chapter 335-6-8 of the Department's Administrative Code.]

335-14-6-.19 [Reserved]

335-14-6-.20 [Reserved]

335-14-6-.21 Commercial Hazardous Waste Disposal Facilities.

(1) Notification.

(a) A commercial hazardous waste disposal facility located in the State of Alabama may not dispose of any waste unless all of the applicable requirements in rule 335-14-3-.08 are met.

(b) A commercial hazardous waste disposal facility located in the State of Alabama must maintain, for three (3) years, the notification documents required by rule 335-14-3-.08 for each waste stream disposed of there.

(2) [Reserved]

(3) [Reserved]

Author: William K. Mullins II; Stephen A. Cobb; Robert W. Barr.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: August 24, 1989.
Amended: December 21, 1989; March 8, 1996.

335-14-6-.22 [Reserved]

335-14-6-.23 Drip pads.

(1) Applicability.

(a) The requirements of 335-14-6-.23 apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-off to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads. The requirement of 335-14-6-.23(4)(b)3. to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under 335-14-6-.23(4)(e) or 335-14-6-.23(4)(f), as appropriate.

(c) The requirements of 335-14-6-.23 are not applicable to the management of infrequent and incidental drippage in storage yards provided that:

1. The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of such infrequent and incidental drippage. At a minimum, the contingency plan must describe how the facility will do the following:

(i) Clean up the drippage;

(ii) Document the cleanup of the drippage;

(iii) Retain documents regarding cleanup for three years; and

(iv) Manage the contaminated media in a manner consistent with State of Alabama regulations.

2. [Reserved]

(2) Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in 335-14-6-.23(1), the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of 335-14-6-.23, except the requirements for liners and leak detection systems of 335-14-6-.23(4)(b). No later than the effective date of 335-14-6-.23, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of 335-14-6-.23(4) are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of 335-14-6-.23(4), except the standards for liners and leak detection systems, specified in 335-14-6-.23(4)(b).

(b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of 335-14-6-.23(4)(b) and submit the plan to the Department no later than two years before the date that all repairs, upgrades, and modifications are complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of 335-14-6-.23(4). The plan must be reviewed and certified by a qualified professional engineer.

(c) Upon completion of all repairs and modifications, the owner or operator must submit to the Department, the as-built drawings for the drip pad together with a certification by a qualified professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of 335-14-6-.23(4)(m) or close the drip pad in accordance with 335-14-6-.23(6).

(3) Design and installation of new drip pads.

Owners and operators of new drip pads must ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) All of the applicable requirements of 335-14-6-.23(4) [except 335-14-6-.23(4)(a)4.], (5), and (6) or

(b) All of the applicable requirements of 335-14-6-.23(4) [except 335-14-6-.23(4)(b)], (5), and (6).

(4) Design and operating requirements.

(a) Drip pads must:

1. Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

2. Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

3. Have a curb or berm around the perimeter;

4. (i) Have a hydraulic conductivity of less than or equal to 1 x 10^{-7} cm/sec, e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1 x 10^{-7} cm/sec such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with 335-14-6-.23(3)(b) instead of 335-14-6-.23(3)(a).

(ii) The owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and recertified annually. The evaluation

must document the extent to which the drip pad meets the design and operating standards of 335-14-6-.23(4), except for 335-14-6-.23(4)(b).

5. Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations; e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

[**Note:** ADEM will generally consider applicable standards established by professional organizations generally recognized by industry such as the American Concrete Institute (ACI) or the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of 335-14-6-.23(4)(a).]

(b) If an owner/operator elects to comply with 335-14-6-.23(3)(a) instead of 335-14-6-.23(3)(b), the drip pad must have:

1. A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner must be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

2. A leakage detection system immediately above the liner that is designed, constructed, maintained, and operated to detect leakage from the drip pad. The leakage detection system must be:

(i) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(II) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

(ii) Designed and operated to function without clogging through the scheduled closure of the drip pad.

(iii) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

3. A leakage collection system immediately above the liner that is designed, constructed, maintained and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed must be documented in the operating log.

(c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

[**Note:** See 335-14-6-.23(4)(m) for remedial action required if deterioration or leakage is detected.]

(d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in 335-14-6-.23(1)(b), the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-on that might enter the system.

(f) Unless protected by a structure or cover, as described in 335-14-6-.23(1)(b), the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad must be evaluated to determine that it meets the requirements of 335-14-6-.23(4)(a) through (f), and the owner or operator must obtain a statement from a qualified professional engineer certifying that the drip pad design meets the requirements of 335-14-6-.23(4).

(h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface must be cleaned thoroughly in a manner and frequency such that accumulated residues or hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or

other materials on the drip pad. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

1. Upon detection of a condition that may have caused or has caused a release of hazardous waste (e.g. upon detection of leakage by the leak detection system), the owner or operator must:

(i) Enter a record of the discovery in the facility operating log;

(ii) Immediately remove the portion of the drip pad affected by the condition from service;

(iii) Determine what steps must be taken to repair the drip pad, remove any leakage from below the drip pad, and establish a schedule for accomplishing the cleanup and repairs;

(iv) Within 24 hours after discovery of the condition, notify the Department of the condition and within 10 working days, provide written notice to the Department with a description of the steps that will be taken to repair the drip pad and clean up any leakage and the schedule for accomplishing this work.

2. The Department will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

3. Upon completing all repairs and clean up, the owner or operator must notify the Department in writing and provide a certification, signed by an independent, qualified registered professional engineer, that the repairs and

cleanup have been completed according to the written plan submitted in accordance with 335-14-6-.23(4)(m)1.(iv).

(n) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

(5) Inspections.

(a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of 335-14-6-.23(4) by a qualified professional engineer. The certification must be maintained at the facility as part of the facility operating record. After installation, liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1. Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2. The presence of leakage in and proper functioning of leak detection system;

3. Deterioration or cracking of the drip pad surface.

[**Note:** See 335-14-6-.23(4)(m) for remedial action required if deterioration or leakage is detected.]

(c) For inspections performed pursuant to rule 335-14-6-.23(5)(b), the owner or operator must record inspections in an inspection log or summary and keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

(6) Closure.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated

components, subsoils, structures, and equipment as required in 335-14-6-.23(6)(a), the owner or operator finds that not all contaminated subsoils can be practically removed or decontaminated, he must close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills [335-14-6-.14(11)]. For permitted units, the requirement to have a permit continues throughout the post-closure period.

(c) [Reserved]

(d) [Reserved]

(e) 1. The owner or operator of an existing drip pad, as defined in 335-14-6-.23(1), that does not comply with the liner requirements of 335-14-6-.23(4)(b)1. must:

(i) Include in the closure plan for the drip pad under 335-14-6-.07(3) both a plan for complying with 335-14-6-.23(6)(a) and a contingent plan for complying with 335-14-6-.23(6)(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under 335-14-6-.07(9) for complying with 335-14-6-.23(6)(b) in case not all contaminated subsoils can be practicably removed at closure.

2. The cost estimates calculated under 335-14-6-.07(3) and 335-14-6.-08(5) for closure and post-closure care of a drip pad subject to 335-14-6-.23(6)(e) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under 335-14-6-.23(6)(a).

Author: Stephen C. Maurer; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Jonah L. Harris; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: January 25, 1992.
Amended: January 1, 1993; January 5, 1995; April 2, 1999; April 13, 2001; March 15, 2002; April 17, 2003; May 27, 2004; April 4, 2006; April 3, 2007; April 3, 2012; March 31, 2017.

335-14-6-.24 [Reserved]

335-14-6-.25 [Reserved]

335-14-6-.26 [Reserved]

335-14-6-.27 Subpart AA - Air Emission Standards for Process Vents.

The Environmental Protection Agency Regulations set forth in 40 CFR, Part 265, Subpart AA (as published by EPA on June 21, 1990 and as amended on April 26, 1991; December 6, 1994; February 9, 1996; November 25, 1996;

June 13, 1997; October 8, 1997; December 8, 1997; June 14, 2005; and July 14, 2006), are incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; C. Edwin Johnston; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: January 25, 1992.
Amended: January 1, 1993; January 5, 1995; January 12, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-6-.28 Subpart BB - Air Emission Standards for Equipment Leaks.

The Environmental Protection Agency Regulations, as set forth in 40 CFR, Part 265, Subpart BB (as published by EPA on June 21, 1990 and amended on April 26, 1991; November 25, 1996; June 13, 1997; October 8, 1997; December 8, 1997; April 26, 2004; June 14, 2005; April 4, 2006; and July 14, 2006), are incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; C. Edwin Johnston; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: January 25, 1992.
Amended: January 1, 1993; January 5, 1995; January 12, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 31, 2005; April 4, 2006, March 31, 2017.

335-14-6-.29 ubpart CC - Air Emission Standards for Tanks, Surface Impoundments, and Containers.

The Environmental Protection Agency Regulations, as set forth in 40 CFR, Part 265, Subpart CC (as published by EPA on December 6, 1994 and as amended on February 9, 1996; November 25, 1996; December 8, 1997; January 21, 1999; June 14, 2005; July 14, 2006; and January 3, 2018), are incorporated herein by reference.

In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 265, Subpart CC, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM

Administrative Code and the ADEM Administrative Code rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern. Any provision of 40 CFR Part 265, Subpart CC, which is inconsistent with the provisions of ADEM Administrative Code, Division 14, is not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: C. Edwin Johnston; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama, 1975, §§ 22-30-11 and 22-30-16.
History: March 27, 1998. **Amended:** Effective: April 2, 1999; **Amended:** Effective: March 31, 2000; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 31, 2005; **Amended:** Effective: April 4, 2006; **Amended:** Effective: March 31, 2017; **Amended:** Filed: February 19, 2019; Effective: April 5, 2019.

335-14-6-.30 Containment Buildings.

(1) Applicability. The requirements of 335-14-6-.30 apply to owners or operators who store or treat hazardous waste in units designed and operated under 335-14-6-.30(2). The owner or operator is not subject to the definition of land disposal in RCRA Section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit; and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

1. A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

2. A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

3. A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest possible time,

unless the unit has been granted a variance from the secondary containment system requirement under 335-14-6-.30(2)(b)4.

(d) Has controls sufficient to prevent fugitive dust emissions in order to meet the no-visible-emission standard in 335-14-6-.30(2)(c)1.(iv); and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

(2) Design and operating standards.

(a) All containment buildings must comply with the following design standards:

1. The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

2. The floor and containment walls of the unit, including the secondary containment system if required under 335-14-6-.30(2)(b), must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit; and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The Department will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of 335-14-6-.30(2). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that met these criteria;

(i) They provide an effective barrier against fugitive dust emissions under 335-14-6-.30(2)(c)1.(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

3. Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4. A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the

unit during the operating life of the unit and appropriate for the physical and chemical characteristics or the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

1. A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g. a geomembrane covered by a concrete wear surface).

2. A liquid collection and removal system to prevent the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier must be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time that protects human health and the environment.

3. A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by the installation of a system that is, at a minimum:

(I) Constructed with a bottom slope of 1 percent or more; and

(II) Constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m^2/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. [Containment buildings serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner

system for a tank, provided it meets the requirements of 335-14-6-.10(4)(e)1. In addition, the containment building must meet the requirements of 335-14-6-.10(4)(b) and (c) to be considered an acceptable secondary containment system for a tank.]

4. For existing units other than 90-day generator units, the Director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of 335-14-6-.30. In making this demonstration, the owner or operator must:

(i) Provide written notice to the Director of their request by February 18, 1993. This notification must describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Director on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Director.

(c) Owners or operators of all containment buildings must:

1. Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any opening (doors, windows, vents, cracks, etc.) exhibits no visible emissions. In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices. This state of no visible emissions must be maintained effectively at all times during normal operating conditions, including when vehicles and personnel are entering and exiting the unit.

2. Obtain and keep on-site a certification by a qualified professional engineer that the containment building design meets the requirements of 335-14-6-.30(2)(a) through (c). A qualified professional engineer certification will be required prior to operation of the unit.

3. Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator must repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

(I) Enter a record of the discovery in the facility operating record;

(II) Immediately remove the portion of the containment building affected by the condition from service;

(III) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(IV) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(ii) The Director will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator must notify the Director in writing and provide a verification signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with 335-14-6-.30(2)(c)3.(i)(IV).

4. Inspect and record in the facility's operating record, at least once a week, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment building that contains both areas with and without secondary containment, the owner or operator must:

1. Design and operate each area in accordance with the requirements enumerated in 335-14-6-.30(2)(a) through (c).

2. Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

3. Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of 335-14-6-.30, the Director may waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

(3) Closure and post-closure care.

(a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.) contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless rule 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in rules 335-14-6-.07 and 335-14-6-.08.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-6-.30(3)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills [rule 335-14-6-.14(11)]. In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in rules 335-14-6-.07 and 335-14-6-.08.

(c) Prior to closure of a containment building, the owner or operator must notify the Department in writing as required by 335-14-3-.01(7)(a)8(i)a..

(d) Within 45 days of completing closure activities, the owner or operator must provide a written report as required by 335-14-3-.01(7)(a)8.(i)b. documenting the procedures used to comply with 335-14-6-.30 and 335-14-3-.01(7)(a)8.(ii).

(4) through (11) [Reserved]

Author: C. Lynn Garthright; Amy P. Zachry; C. Edwin Johnston; Nicholas J. Wolf; Michael B. Champion; Theresa A. Maines; Vernon H. Crockett.

Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: January 5, 1995.
Amended: March 28, 1997; March 27, 1998; April 13, 2001; March 15, 2002; April 17, 2003; April 3, 2007, March 31, 2017; April 6, 2018.

335-14-6-.31 Hazardous Waste Munitions and Explosives Storage.

(1) Applicability.

The requirements of 335-14-6-.31 apply to owners or operators who store munitions and explosive hazardous wastes, except as 335-14-6-.01(1) provides otherwise.

[**Note:** Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (335-14-6-.30), tanks (335-14-6-.10), or containers (335-14-6-.09). See 335-14-7-.13(6) for storage of waste military munitions].

(2) Design and operating standards.

(a) Hazardous waste munitions and explosives storage units must be designed and operated with containment systems, controls, and monitoring, that:

1. Minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off, to the soil, ground water, surface water, and atmosphere;

2. Provide a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;

3. For wastes stored outdoors, provide that the waste and containers will not be in standing precipitation;

4. For liquid wastes, provide a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area, or vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken (e.g., additional containment, such as overpacking, or removal from the waste area); and

5. Provide monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

(b) Hazardous waste munitions and explosives stored under 335-14-6-.31 may be stored in one of the following:

1. Earth-covered magazines. Earth-covered magazines must be:

(i) Constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

(ii) Designed and constructed:

(I) To be of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

(II) To provide working space for personnel and equipment in the unit; and

(III) To withstand movement activities that occur in the unit; and

(iii) Located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

2. Above-ground magazines. Above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

3. Outdoor or open storage areas. Outdoor or open storage areas must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(c) Hazardous waste munitions and explosives must be stored in accordance with a Standard Operating Procedure specifying procedures to ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of 335-14-6-.02(5), the preparedness and prevention procedures of 335-14-6-.03, and the contingency plan and emergency procedures requirements of 335-14-6-.04, then these procedures will be used to fulfill those requirements.

(d) Hazardous waste munitions and explosives must be packaged to ensure safety in handling and storage.

(e) Hazardous waste munitions and explosives must be inventoried at least annually.

(f) Hazardous waste munitions and explosives and their storage units must be inspected and monitored as necessary to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

(3) Closure and post-closure care.

(a) At closure of a magazine or unit which stored hazardous waste under 335-14-6-.31, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components, contaminated

subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless 335-14-2-.01(3)(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in 335-14-6-.07 and 335-14-6-.08, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in 335-14-6-.31(3)(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he or she must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills [335-14-6-.14(11)].

Author: C. Edwin Johnston; Heather M. Jones.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: March 27, 1998.
Amended: April 13, 2001; April 3, 2012.

335-14-6-APPENDIX I Recordkeeping Instructions.

The recordkeeping provisions of 335-14-6-.05(4) specify that an owner or operator must keep a written operating record at his facility. 335-14-6-Appendix I provides additional instructions for keeping portions of the operating record. See 335-14-6-.05(4)(b) for additional recordkeeping requirements.

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Chapter 335-14-2 which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in rule 335-14-2-.04, the description also must include the process that produced it (for example, solid filter cake from production of _____, EPA Hazardous Waste Number W051).

Each hazardous waste in rule 335-14-2-.04, and each hazardous waste characteristic defined in rule 335-14-2-.03, has a four digit EPA Hazardous Waste Number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic

applies to the waste, the waste description must include all applicable EPA or Alabama Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1; and

(3) The method(s) [by handling code(s) as specified in Table 2] and date(s) of treatment, storage or disposal.

TABLE 1

Unit of Measure	Symbol[1]
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R
Cubic yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's Per Hour	I
Pounds	P
Short tons	T
Kilograms	K
Tons	M

[1]Single digit symbols are used here for data processing purposes.

TABLE 2

HANDLING CODES FOR TREATMENT, STORAGE AND DISPOSAL METHODS

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage.

S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste pile
S04	Surface impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other storage (specify)

2. Treatment.

T01	Tank
T02	Surface Impoundment
T03	Incinerator
T04	Other Treatment
T94	Containment Building (Treatment)
T99	Boiler/Industrial Furnace

Note: In addition to coding T01, T02, T03, T04, T94, or T99, record specific handling codes as appropriate below.

(a) Thermal Treatment.

T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)

(b) Chemical Treatment.

T19	Absorption mound
T20	Absorption field
T21	Chemical fixation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)

(c) Physical Treatment.

(1) Separation of Components.

T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)

(2) Removal of Specific Components.

T48	Absorption-molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)

(d) Biological Treatment.

T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)
T78	[Reserved]
T79	[Reserved]

(e) Boilers and Industrial Furnaces.

T80	Boiler
T81	Cement kiln
T82	Lime kiln
T83	Aggregate kiln
T84	Phosphate kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace
T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92	Halogen Acid Furnaces
T93	Other Industrial Furnaces Listed in rule 335-14-1-.02 (specify)

3. Disposal.

D79	Underground injection
D80	Landfill
D81	Land treatment
D82	Ocean disposal
D83	Surface impoundment (to be closed as a landfill)
D99	Other (specify)

4. Miscellaneous.

X01	Open Burning/Open Detonation
X02	Mechanical Processing
X03	Thermal Unit
X04	Geologic Repository
X05	Other Subpart X (specify; use appropriate code from 2.(a) through 2.(e), if applicable)

Author: Stephen C. Maurer; C. Edwin Johnston; Michael B. Champion; Bradley N. Curvin; Theresa A. Maines.

Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-16 and 22-30-18.
History: November 19, 1980.
Amended: August 24, 1989; January 5, 1995; April 13, 2001; April 17, 2003; April 4, 2006; April 3, 2007; March 30, 2010; April 3, 2012.

335-14-6-APPENDIX II [Reserved]

335-14-6-APPENDIX III ADEM Primary Drinking Water Standards.

Maximum concentration limits as defined in ADEM Administrative Code 335-7-2.

Author: Stephen C. Maurer; C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.
Amended: August 24, 1989; December 6, 1990; January 5, 1995; April 13, 2001.

335-14-6-APPENDIX IV Tests for Significance.

As required in 335-14-6-.06(4)(b), the owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic groundwater samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For three of the indicator parameters (specific conductance, total organic carbon and total organic halogen) a single-tailed Student's t-test at the 0.01 level of significance for significant increases over background must be used. The difference test for pH must be a two-tailed Student's t-test at the overall 0.01 level of significance.

The student's t-test involves calculation of the value of a t-statistic for each comparison of the mean (average) concentration or value (based on a minimum of four replicate measurements) of an indicator parameter with its initial background concentration or value. The calculated value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter.

Formulae for calculation of the t-statistic and tables for t-test of significance can be found in most introductory statistics texts.

Author: Stephen C. Maurer; Michael B. Champion.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.

Amended: September 29, 1986; August 24, 1989; April 17, 2003.

335-14-6-APPENDIX V <u>Examples of Potentially Incompatible Waste</u>.

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components and materials, along with the harmful consequences which result from mixing materials in one 335-14-6-Appendix V group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

GROUP 1-A	GROUP 1-B
Acetylene sludge	Acid sludge
Alkaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluid	Electrolyte acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other corrosive alkalies	Pickling liquor and other corrosive acids
Lime wastewater	Spent acid
Lime and water	Spent mixed acid

Spent caustic	Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

GROUP 2-A	GROUP 2-B
Aluminum	Any waste in Group 1-A or 1-B
Beryllium	
Calcium	
Lithium	
Magnesium	
Potassium	
Sodium	
Zinc powder	
Other reactive metals and metal hydrides	

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

GROUP 3-A	GROUP 3-B
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium
	Lithium
	Metal hydrides
	Potassium
	SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
	Other waste-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

GROUP 4-A	GROUP 4-B
Alcohols	Concentrated Group 1-A or 1-B wastes
Aldehydes	Group 2-A wastes
Halogenated hydrocarbons	
Nitrated hydrocarbons	

Unsaturated hydrocarbons

Other reactive organic compounds and solvents

Potential consequences: Fire, explosion, or violent reaction.

GROUP 5-A	GROUP 5-B
Spent cyanide and sulfide solutions	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

GROUP 6-A	GROUP 6-B
Chlorates	Acetic acid and other organic acids
Chlorine	Concentrated mineral acids
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hypochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Permanganates	
Peroxides	
Other strong oxidizers	

Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste". California Department of Health, February 1975.

Author: Stephen C. Maurer.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
History: November 19, 1980.
Amended: September 29, 1986; August 24, 1989; April 3, 2007.

335-14-6-APPENDIX VI Compounds With Henry's Law Constant Less Than 0.1 Y.

Compound name	CAS No.
Acetaldol	107–89–1
Acetamide	60–35–5
2-Acetylaminofluorene	53–96–3
3-Acetyl-5-hydroxypiperidine.	
3-Acetylpiperidine	618–42–8
1-Acetyl-2-thiourea	591–08–2
Acrylamide	79–06–1
Acrylic acid	79–10–7
Adenine	73–24–5
Adipic acid	124–04–9
Adiponitrile	111–69–3
Alachlor	15972–60–8
Aldicarb	116–06–3
Ametryn	834–12–8
4-Aminobiphenyl	92–67–1
4-Aminopyridine	504–24–5
Aniline	62–53–3
o-Anisidine	90–04–0
Anthraquinone	84–65–1
Atrazine	1912–24–9
Benzenearsonic acid	98–05–5
Benzenesulfonic acid	98–11–3
Benzidine	92–87–5
Benzo(a)anthracene	56–55–3
Benzo(k)fluoranthene	207–08–9
Benzoic acid	65–85–0
Benzo(g,h,i)perylene	191–24–2
Benzo(a)pyrene	50–32–8
Benzyl alcohol	100–51–6
gamma-BHC	58–89–9
Bis(2-ethylhexyl)phthalate	117–81–7
Bromochloromethyl acetate.	
Bromoxynil	1689–84–5
Butyric acid	107–92–6
Caprolactam (hexahydro-2H-azepin-2-one)	105–60–2
Catechol (o-dihydroxybenzene)	120–80–9
Cellulose	9004–34–6
Cell wall.	
Chlorhydrin (3-Chloro-1,2-propanediol)	96–24–2
Chloroacetic acid	79–11–8
2-Chloroacetophenone	93–76–5
p-Chloroaniline	106–47–8
p-Chlorobenzophenone	134–85–0
Chlorobenzilate	510–15–6

p-Chloro-m-cresol (6-chloro-m-cresol)	59–50–7
3-Chloro-2,5-diketopyrrolidine.	
Chloro-1,2-ethanediol.	
4-Chlorophenol	106–48–9
Chlorophenol polymers (2-chlorophenol & 4-chlorophenol)	95–57–8 & 106–48–9
1-(o-Chlorophenyl)thiourea	5344–82–1
Chrysene	218–01–9
Citric acid	77–92–9
Creosote	8001–58–9
m-Cresol	108–39–4
o-Cresol	95–48–7
p-Cresol	106–44–5
Cresol (mixed isomers)	1319–77–3
4-Cumylphenol	27576–86
Cyanide	57–12–5
4-Cyanomethyl benzoate.	
Diazinon	333–41–5
Dibenzo(a,h)anthracene	53–70–3
Dibutylphthalate	84–74–2
2,5-Dichloroaniline (N,N'-dichloroaniline)	95–82–9
2,6-Dichlorobenzonitrile11	1194–65–6
2,6-Dichloro-4-nitroaniline	99–30–9
2,5-Dichlorophenol	333–41–5
3,4-Dichlorotetrahydrofuran	3511–19
Dichlorvos (DDVP)	62-73-7
Diethanolamine	111–42–2
N,N-Diethylaniline	91–66–7
Diethylene glycol	111–46–6
Diethylene glycol dimethyl ether (dimethyl Carbitol)	111–96–6
Diethylene glycol monobutyl ether (butyl Carbitol)	112–34–5
Diethylene glycol monoethyl ether acetate (Carbitol acetate)	112–15–2
Diethylene glycol monoethyl ether (Carbitol Cellosolve)	111–90–0
Diethylene glycol monomethyl ether (methyl Carbitol)	111–77–3
N,N'-Diethylhydrazine	1615–80–1
Diethyl (4-methylumbelliferyl) thionophosphate	299–45–6
Diethyl phosphorothioate	126–75–0
N,N'-Diethylpropionamide	15299–99–7
Dimethoate	60–51–5
2,3-Dimethoxystrychnidin-10-one	357–57–3
4-Dimethylaminoazobenzene	60–11–7
7,12-Dimethylbenz(a)anthracene	57–97–6
3,3-Dimethylbenzidine	119–93–7
Dimethylcarbamoyl chloride	79–44–7
Dimethyldisulfide	624–92–0
Dimethylformamide	68–12–2

1,1-Dimethylhydrazine	57–14–7
Dimethylphthalate	131–11–3
Dimethylsulfone	67–71–0
Dimethylsulfoxide	67–68–5
4,6-Dinitro-o-cresol	534–52–1
1,2-Diphenylhydrazine	122–66–7
Dipropylene glycol (1,1'-oxydi-2-propanol)	110–98–5
Endrin	72–20–8
Epinephrine	51–43–4
mono-Ethanolamine	141–43–5
Ethyl carbamate (urethane)	5–17–96
Ethylene glycol	107–21–1
Ethylene glycol monobutyl ether (butyl Cellosolve)	111–76–2
Ethylene glycol monoethyl ether (Cellosolve)	110–80–5
Ethylene glycol monoethyl ether acetate (Cellosolve acetate)	111–15–9
Ethylene glycol monomethyl ether (methyl Cellosolve)	109–86–4
Ethylene glycol monophenyl ether (phenyl Cellosolve)	122–99–6
Ethylene glycol monopropyl ether (propyl Cellosolve)	2807–30–9
Ethylene thiourea (2-imidazolidinethione)	96-45–7
4-Ethylmorpholine	100–74–3
3-Ethylphenol	620–17–7
Fluoroacetic acid, sodium salt	62–74–8
Formaldehyde	50–00–0
Formamide	75–12–7
Formic acid	64–18–6
Fumaric acid	110–17–8
Glutaric acid	110–94–1
Glycerin (Glycerol)	56–81–5
Glycidol	556–52–5
Glycinamide	598–41–4
Glyphosate	1071–83–6
Guthion	86–50–0
Hexamethylene-1,6-diisocyanate (1,6-diisocyanatohexane)	822–06–0
Hexamethyl phosphoramide	680–31–9
Hexanoic acid	142–62–1
Hydrazine	302–01–2
Hydrocyanic acid	74–90–8
Hydroquinone	123–31–9
Hydroxy-2-propionitrile (hydracrylonitrile)	109–78–4
Indeno (1,2,3-cd) pyrene	193–39–5
Lead acetate	301–04–2
Lead subacetate (lead acetate, monobasic)	1335–32–6
Leucine	61–90–5
Malathion	121–75–5
Maleic acid	110–16–7
Maleic anhydride	108–31–6

Mesityl oxide	141–79–7
Methane sulfonic acid	75–75–2
Methomyl	16752–77–5
p-Methoxyphenol	150–76–5
Methyl acrylate	96–33–3
4,4'-Methylene-bis-(2-chloroaniline)	101–14–4
4,4'-Methylenediphenyl diisocyanate (diphenyl methane diisocyanate)	101–68–8
4,4'-Methylenedianiline	101–77–9
Methylene diphenylamine (MDA).	
5-Methylfurfural	620–02–0
Methylhydrazine	60–34–4
Methyliminoacetic acid.	
Methyl methane sulfonate	66–27–3
1-Methyl-2-methoxyaziridine.	
Methylparathion	298–00–0
Methyl sulfuric acid (sulfuric acid, dimethyl ester)	77–78–1
4-Methylthiophenol	106–45–6
Monomethylformamide (N-methylformamide)	123–39–7
Nabam	142–59–6
alpha-Naphthol	90–15–3
beta-Naphthol	135–19–3
alpha-Naphthylamine	134–32–7
beta-Naphthylamine	91–59–8
Neopentyl glycol (dimethylpropane)	126–30–7
Niacinamide	98–92–0
o-Nitroaniline	88–74–4
Nitroglycerin	55–63–0
2-Nitrophenol	88–75–5
4-Nitrophenol	100–02–7
N-Nitrosodimethylamine	62–75–9
Nitrosoguanidine	674–81–7
N-Nitroso-n-methylurea	684–93–5
N-Nitrosomorpholine (4-nitrosomorpholine)	59–89–2
Oxalic acid	144–62–7
Parathion	56–38–2
Pentaerythritol	115–77–5
Phenacetin	62–44–2
Phenol	108–95–2
Phenylacetic acid	103–82–2
m-Phenylene diamine	108–45–2
o-Phenylene diamine	95–54–5
p-Phenylene diamine	106–50–3
Phenyl mercuric acetate	62–38–4
Phorate	298–02–2
Phthalic anhydride	85–44–9

alpha-Picoline (2-methyl pyridine)	109–06–8
1,3-Propane sultone	1120–71–4
beta-Propiolactone	57–57–8
Proporur (Baygon).	
Propylene glycol	57–55–6
Pyrene	129–00–0
Pyridinium bromide	39416–48–3
Quinoline	91–22–5
Quinone (p-benzoquinone)	106–51–4
Resorcinol	108–46–3
Simazine	122–34–9
Sodium acetate	127–09–3
Sodium formate	141–53–7
Strychnine	57–24–9
Succinic acid	110–15–6
Succinimide	123–56–8
Sulfanilic acid	121–47–1
Terephthalic acid	100–21–0
Tetraethyldithiopyrophosphate	3689–24–5
Tetraethylenepentamine	112–57–2
Thiofanox	39196–18–4
Thiosemicarbazide	79–19–6
2,4-Toluenediamine	95–80–7
2,6-Toluenediamine	823–40–5
3,4-Toluenediamine	496–72–0
2,4-Toluene diisocyanate	584–84–9
p-Toluic acid	99–94–5
m-Toluidine	108–44–1
1,1,2-Trichloro-1,2,2-trifluoroethane	76–13–1
Triethanolamine	102–71–6
Triethylene glycol dimethyl ether.	
Tripropylene glycol	24800–44–0
Warfarin	81–81–2
3,4-Xylenol (3,4-dimethylphenol)	95–65–8

Author: C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-16.
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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-7
STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

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335-14-7-APPENDIX IX	Methods Manual for Compliance with the BIF Regulations
335-14-7-APPENDIX X	[Reserved]

335-14-7-APPENDIX XI	**Lead Bearing Materials that may be Processed in Exempt Lead Smelters**
335-14-7-APPENDIX XII	**Nickel or Chromium-Bearing Materials that May be Processed in Exempt Nickel Chromium Recovery Furnaces**
335-14-7-APPENDIX XIII	**Mercury Bearing Wastes that May be Processed in Exempt Mercury Recovery Units**

335-14-7-.01 **[Reserved]**

335-14-7-.02 **[Reserved]**

335-14-7-.03 **Recyclable Materials Used in a Manner Constituting Disposal.**

(1) Applicability.

(a) The requirements of 335-14-7-.03 apply to recyclable materials that are applied to or placed on the land:

1. Without mixing with any other substance(s); or

2. After mixing or combining with any other substance(s). These materials will be referred to throughout 335-14-7-.03 as "materials used in a manner that constitutes disposal".

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in rule 335-14-9-.04 (or applicable prohibition levels in 335-14-9-.03(13) or RCRA Section 3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain, and the recycler complies with 40 CFR 268.7(b)(6).

(c) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in 335-14-7-.03(1)(b) and remain subject to regulation.

(d) Fertilizers that contain recyclable materials are not subject to regulation provided that:

1. They are zinc fertilizers excluded from the definition of solid waste according to 335-14-2-.01(4)(a)20; or

2. They meet the applicable treatment standards in 335-14-9-.04(1) for each hazardous waste that they contain.

(2) Standards applicable to generators and transporters of materials used in a manner that constitutes disposal.

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Chapters 335-14-3 and 335-14-4.

(3) Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of rules 335-14-5-.01 through 335-14-5-.12 and 335-14-6-.01 through 335-14-6-.12 and Chapter 335-14-8, and the notification requirement under 335-14-3-.01(8).

(4) Standards applicable to users of materials that are used in a manner that constitutes disposal.

(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of rules 335-14-5-.01 through 335-14-5-.14 and 335-14-6-.01 through 335-14-6-.14, Chapter 335-14-8 and Chapter 335-14-9, and the notification requirement under Section 3010 of RCRA. (These regulations do not apply to products which contain these recyclable materials under the provisions of 335-14-7-.03(1)(b).)

(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

Author: Stephen C. Maurer; C. Edwin Johnston; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15 and 22-30-16.
History: April 9, 1986.
Amended: September 29, 1986; February 15, 1988; August 24, 1989; December 6, 1990; April 28, 1995; April 13, 2001; April 17, 2003, May 27, 2004; April 4, 2006; March 26, 2013; March 31, 2017; April 6, 2018.

335-14-7-.04 [Reserved]

335-14-7-.05 [Reserved]

335-14-7-.06 Recyclable Materials Utilized for Precious Metal Recovery.

(1) Applicability and requirements.

(a) The requirements of 335-14-7-.06 apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport or store recyclable materials that are regulated under 335-14-7-.06 are subject to the following requirements:

1. Notification requirements under 335-14-3-.01(8), 335-14-4-.01(2), and 335-14-5-.02(2);

2. Rule 335-14-3-.02 (for generators), 335-14-4-.02(1) and (2) (for transporters), and 335-14-6-.05(2) and (3) (for persons who store); and

3. For precious metals exported to or imported from other countries for recovery, rule 335-14-3-.09 and 335-14-6-.02(3)(a)2.

(c) Persons who store recycled materials that are regulated under 335-14-7-.06 must keep the following records to document that they are not accumulating these materials speculatively (as defined in 335-14-1-.02):

1. Records showing the volume of these materials stored at the beginning of the calendar year;

2. The amount of these materials generated or received during the calendar year; and

3. The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under 335-14-7-.06 that are accumulated speculatively (as defined in 335-14-1-.02) are subject to all applicable provisions of Chapters 335-14-3, 335-14-4, 335-14-5, 335-14-6, and 335-14-8.

Author: Stephen C. Maurer; Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15 and 22-30-16.
History: April 9, 1986.
Amended: February 15, 1988; August 24, 1989; March 28, 1997; April 13, 2001; April 4, 2006; April 3, 2007; May 27, 2008, March 31, 2017; April 6, 2018.

335-14-7-.07 Spent Lead-Acid Batteries Being Reclaimed.

(1) Applicability and requirements.

(a) Lead acid batteries that are generated, collected, transported, stored, or regenerated for reclamation purposes may be exempt from certain hazardous waste management requirements. The following table may be used to determine which requirements apply. Alternatively, spent lead-acid batteries may be managed in accordance with the "Universal Waste" rule in 335-14-11.

If the batteries *	And if the batteries	Then the batteries	And the batteries
1. will be reclaimed through regeneration (such as by electrolyte replacement).		are exempt from the requirements of 335-14-3 [except for 335-14-3-.01(2)] through 335-14-9.	are subject to the requirements of 335-14-2 and 335-14-3-.01(2).
2. will be reclaimed other than through regeneration.	are generated, collected, and/or transported.	are exempt from the requirements of 335-14-3 [except for 335-14-3-.01(2)] through 335-14-8.	are subject to the requirements of 335-14-2 and 335-14-3-.01(2), and applicable provisions under 335-14-9.
3. will be reclaimed other than through regeneration.	are stored prior to reclamation by persons other than the person reclaiming the batteries.	are exempt from the requirements of 335-14-3 [except for 335-14-3-.01(2)] through 335-14-8.	are subject to the requirements of 335-14-2 and 335-14-3-.01(2), and applicable provisions under 335-14-9.
4. will be reclaimed other than through regeneration.	are stored prior to reclamation by the person reclaiming the batteries.	are subject to the requirements of 335-14-7-.07(1)(b) and other applicable regulatory provisions described in 335-14-7-.07(1)(b).	are subject to the requirements of 335-14-2 and 335-14-3-.01(2), and applicable provisions under 335-14-9.
5. will be reclaimed other than through regeneration.	are not stored prior to being reclaimed.	are exempt from the requirements of 335-14-3 [except for 335-14-3-.01(2)] through 335-14-8.	are subject to the requirements of 335-14-2,335-14-3-.01(2), and applicable provisions under 335-14-9.

6. will be reclaimed through regeneration or any other means.	are exported for reclamation in a foreign country.	are exempt from the requirements of 335-14-4 through 335-14-9. They are also exempt from the requirements of 335-14-3 [except for 335-14-3-.01(2)], and except for the applicable requirements in 335-14-3-.09 (1)	are subject to the requirements of 335-14-2, 335-14-3-.01(2), 335-14-3-.01(8), and 335-14-3-.09.
7. will be reclaimed through regeneration and any other means.	are transported in the U.S. to be exported for reclamation in a foreign country.	are exempt from the requirements of 335-14-3 through 335-14-9.	are subject to applicable requirements in 335-14-3-.09
8. will be reclaimed other than through regeneration	Import these batteries from foreign country and store these batteries but you aren't the reclaimer	are exempt from 335-14-3 through 6 (except for 335-14-3-.01(2), 335-14-3-.01(8), and 335-14-3-.09), and 335-14-8,	are subject to 335-14-2, 335-14-3-.01(2), 335-14-3-.01(8), 335-14-3-.09, and applicable provisions under 335-14-9.
9. will be reclaimed other than through regeneration	Import these batteries from foreign country and store these batteries before you reclaim them	must comply with 335-14-7-.07(1)(b)	are subject to 335-14-2, 335-14-3-.01(2), 335-14-3-.01(8), 335-14-3-.09, and applicable provisions under 335-14-9.

10. will be reclaimed other than through regeneration	Import these batteries from foreign country and don't store these batteries before you reclaim them	are exempt from 335-14-3 through 6 (except for 335-14-3-.01(2), 335-14-3-.01(8), and 335-14-3-.09), and 335-14-8,	are subject to 335-14-2, 335-14-3-.01(2), 335-14-3-.01(8), 335-14-3-.09, and applicable provisions under 335-14-9.

(b) The requirements of 335-14-7-.07(1)(b) apply if spent lead-acid batteries are stored prior to reclamation if such reclamation involves any method other than regeneration. The requirements may vary depending upon the RCRA permit status of the person(s) storing and reclaiming the batteries.

1. Interim Status Facilities must comply with:

(i) Notification requirements under 335-14-3-.01(8).

(ii) All applicable provisions in 335-14-6-.01.

(iii) All applicable provisions in 335-14-6-.02 except 335-14-6-.02(4) (waste analysis).

(iv) All applicable provisions in 335-14-6-.03 and 336-14-6-.04.

(v) All applicable provisions in 335-14-6-.05 except 335-14-6-.05(2) and (3) (dealing with the use of the manifest and manifest discrepancies).

(vi) All applicable provisions in 335-14-6-.06 through 335-14-6-.12.

(vii) All applicable provisions in 335-14-8.

2. Permitted Facilities must comply with:

(i) Notification requirements under 335-14-3-.01(8).

(ii) All applicable provisions in 335-14-5-.01.

(iii) All applicable provisions in 335-14-5-.02 except 335-14-5-.02(4) (waste analysis).

(iv) All applicable provisions in 335-14-5-.03 and 336-14-5-.04.

(v) All applicable provisions in 335-14-5-.05 [but not 335-14-5-.05(2) and (3) (dealing with the use of the manifest and manifest discrepancies)].

(vi) All applicable provisions in 335-14-5-.06 through 335-14-5-.12.

(vii) All applicable provisions in 335-14-8.

(2) [Reserved]

(3) Generation.

(a) Facilities which by battery-breaking operations generate separate components of a spent lead-acid battery, which are a solid waste as identified by 335-14-2-.01 and a hazardous waste as identified by 335-14-2-.03 or 335-14-2-.04, must comply with the generator requirements of 335-14-3.

(b) Facilities which generate separate components of a lead-acid battery by battery-breaking operations and offer said components for transportation activities as identified in 335-14-1-.02 must comply with the manifest requirements of 335-14-3-.02 provided the components are a solid waste as identified by 335-14-2-.01 and a hazardous waste as defined by 335-14-2-.03 or 335-14-2-.04.

(c) Facilities which generate separate components of a spent lead-acid battery, which are a solid waste as identified by 335-14-2-.01 and a hazardous waste as identified by 335-14-2-.03 or 335-14-2-.04, by battery-breaking operations must comply with the storage requirements of 335-14-5-.09(6) and 335-14-5-.10 for each component.

(4) Transportation.

(a) Facilities which engage in transportation activities as identified in 335-14-1-.02 of separate components of a spent lead-acid battery, which are a solid waste as identified by 335-14-2-.01 and a hazardous waste as identified by 335-14-2-.03 or 335-14-2-.04, must comply with the standards applicable to transporters of hazardous waste as outlined in 335-14-4.

(b) Facilities which receive and store separate components of a spent lead-acid battery must comply with the manifest requirements of 335-14-5-.05 provided the components are a solid waste as identified by 335-14-2-.01 and a hazardous waste as identified by 335-14-2-.03 or 335-14-2-.04.

(c) The requirements of 335-14-7-.07 do not apply to the transportation of whole spent lead-acid batteries which have not been subjected to battery-breaking operations.

(5) Storage.

(a) Facilities which receive and store separate components of a spent lead-acid battery which are a solid waste as identified by 335-14-2-.01 and a hazardous waste as identified by 335-14-2-.03 or 335-14-2-.04 must comply with the storage requirements of 335-14-5-.09(6) and 335-14-5-.10 and the permitting requirements of 335-14-8.

(b) Reserved.

(6) Treatment and/or disposal.

(a) Facilities which treat or dispose of hazardous waste(s) generated from the reclamation of spent lead-acid batteries are subject to the requirements of 335-14-1 through 335-14-6, 335-14-8, and 335-14-9.

(b) Reserved.

Author: Stephen C. Maurer; Steven O. Jenkins; Michael Champion; Robert W. Barr; C. Edwin Johnston; Bradley N. Curvin; Heather M. Jones; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15 and 22-30-16.
History: April 9, 1986.
Amended: August 24, 1989; January 1, 1993; January 5, 1995; January 12, 1996; April 2, 1999; March 31, 2000; March 15, 2002; March 31, 2005; March 31, 2011; March 31, 2017; April 6, 2018.

335-14-7-.08 Subpart H - Hazardous Waste Burned in Boilers and Industrial Furnaces.

The Environmental Protection Agency Regulations 40 CFR Part 266, Subpart H (as published by EPA on January 4, 1985 and February 21, 1991, and as amended on July 17, 1991; August 27, 1991; August 25, 1992; September 30, 1992; November 9, 1993; July 20, 1993; June 29, 1995; June 13, 1997; September 30, 1999; June 14; 2005; April 4, 2006; July 14, 2006; and March 18, 2010) except § 266.108, designated in Rules 335-14-7-.08(1) through 335-14-7-.08(8) and Rules 335-14-7-.08(10) through 335-14-7-.08(13), are incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266, Subpart H and Appendices I through XIII which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR Part 264, Subpart BB, such reference to the other Code of Federal Regulations Rule(s) is not incorporated herein and the ADEM Administration Code rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(1) § 266.100 Applicability (as published by EPA on February 21, 1991).

(2) § 266.101 Management prior to burning (as published by EPA on February 21, 1991 and amended on August 25, 1992; September 30; 1999; and March 18, 2010).

(3) § 266.102 Permit standards for burners (as published by EPA on February 21, 1991 and amended on July 17, 1991; August 27, 1991; June 14, 2005; April 4, 2006; and July 14; 2006).

(4) § 266.103 Interim status standards for burners (as published by EPA on February 21, 1991 and amended on July 17, 1991; August 27, 1991; August 25, 1992; September 30, 1992; June 29, 1995; April 4, 2006; and July 14, 2006).

(5) § 266.104 Standards to control organic emissions (as published by EPA on February 21, 1991 and as amended on July 17, 1991; August 25, 1992; July 20, 1993; June 29, 1995; and June 13, 1997).

(6) § 266.105 Standards to control particulate matter (as published by EPA on February 21, 1991 and amended on September 30, 1999).

(7) § 266.106 Standards to control metals emissions (as published by EPA on February 21, 1991 and amended on July 17, 1991; August 25, 1992; July 20, 1993; June 13, 1997; June 14, 2005; and July 14, 2006).

(8) § 266.107 Standards to control hydrogen chloride (HCl) and chlorine gas (Cl_2) emissions (as published by EPA on February 21, 1991 and amended on July 17, 1991; August 25, 1992; and June 13, 1997).

(9) Small Quantity on-site burner exemption.

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste generated on-site in an on-site boiler or industrial furnace are exempt from the requirements of 335-14-7-.08 provided that:

1. The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain- adjusted effective stack height as defined in § 266.106(b)(3) of 40 CFR:

EXEMPT QUANTITIES FOR SMALL QUANTITY BURNER EXEMPTION

Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (gallons/Month)	Terrain-Adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate (Gallons/Month)
0 to 3.9	0	40.0 to 44.9	210
4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400
10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760
18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

2. The maximum hazardous waste firing rate does not exceed at any time one percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a total heat input, or mass input basis, whichever results in the lower mass feed rate of hazardous waste.

3. The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

4. The hazardous waste fuel does not contain (and is not derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with 335-14-7-.08(9)(a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under 335-14-7-.08(9), the quantity limits provided by 335-14-7-.08(9)(a)1. are implemented according to the following equation:

$$\sum_{i=1}^{n} \frac{\text{Actual} \cdot \text{Quantity} \cdot \text{Burned}(i)}{\text{Allowable} \cdot \text{Quantity} \cdot \text{Burned}(i)} < 1.0$$

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device "i";

Allowable Quantity Burned means the maximum allowable exempt quantity for stack "i" from the Table in 335-14-7-.08(9)(a)1.

[**Note:** This exemption does not relieve the facility from the necessity of obtaining appropriate Air Permits from the Department which would authorize the use of alternate feed streams.]

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under 335-14-7-.08(9) must provide a one-time signed, written notice to EPA and ADEM indicating the following:

1. The combustion unit is operating as a small quantity burner of hazardous waste;

2. The owner and operator are in compliance with the requirements of 335-14-7-.08(9); and

3. The maximum quantity of hazardous waste that the facility may burn per month as provided by 335-14-7-.08(9)(a)1.

(e) Recordkeeping requirements. The owner or operator must maintain at the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of 335-14-7-.08(9) and any other parameters deemed necessary by the Department. At a minimum, these records must indicate the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

(f) Monitoring requirements.

1. The combustion device shall be operated in conformance with the carbon monoxide controls provided by § 266.104(b)(1) and (b)(2). Devices subject to the exemption provided by 335-14-7-.08(9) are not eligible for the alternative carbon monoxide controls provided by § 266.104(c).

2. Additional or alternative monitoring techniques may be required on a case-by-case basis by the Director.

(g) Automatic waste feed cutoff. A boiler or industrial furnace must be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions specified in 335-14-7-.08(9)(f) are exceeded.

(h) Start-up and shut-down. Hazardous waste must not be fed into the device during start-up and shut-down of the boiler or industrial furnace unless the device is operating within the conditions of operation specified in the Air Permit.

(10) § 266.109 Low risk waste exemption (as published by EPA on February 21, 1991 and amended on July 17, 1991; August 27, 1991; and July 14, 2006).

(11) § 266.110 Waiver of DRE trial burn for boilers (as published by EPA on February 21, 1991 and amended on July 17 1991; and August 27, 1991).

(12) § 266.111 Standards for direct transfer (as published by EPA on January 4, 1985 and amended on August 27, 1991).

(13) § 266.112 Regulation of residues (as published by EPA on January 4, 1985 and amended on August 27, 1991; August 25, 1992; November 9, 1993; September 30, 1999; and June 14, 2005).

Author: Stephen C. Maurer, Kristy Bowling; C. Edwin Johnston; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
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335-14-7-.09 [Reserved]

335-14-7-.10 [Reserved]

335-14-7-.11 [Reserved]

335-14-7-.12 [Reserved]

335-14-7-.13 Military Munitions.

(1) Applicability.

(a) The regulations in 335-14-7-.13 identify when military munitions become a solid waste, and, if these wastes are also hazardous under 335-14-7-.13 or 335-14-2, the management standards that apply to these wastes.

(b) Unless otherwise specified in 335-14-7-.13, all applicable requirements in 335-14-1 through 335-14-9 apply to waste military munitions.

(2) [Reserved]

(3) Definition of solid waste.

(a) A military munition is not a solid waste when:

1. Used for its intended purpose, including:

(i) Use in training military personnel or explosives and munitions emergency response specialists (including training in proper destruction of unused propellant or other munitions); or

(ii) Use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems; or

(iii) Recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges. However, "use for intended purpose" does not include the on-range disposal or burial of unexploded ordnance and contaminants when the burial is not a result of product use.

2. An unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless such activities involve use constituting disposal as defined in 335-14-2-.01(2)(c)1., or burning for energy recovery as defined in 335-14-2-.01(2)(c)2.

(b) An unused military munition is a solid waste when any of the following occurs:

1. The munition is abandoned by being disposed of, burned, detonated [except during intended use as specified in 335-14-7-.13(3)(a)], incinerated, or treated prior to disposal; or

2. The munition is removed from storage in a military magazine or other storage area for the purpose of being disposed of, burned, or incinerated, or treated prior to disposal, or

3. The munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition, and cannot reasonably be recycled or used for other purposes; or

4. The munition has been declared a solid waste by an authorized military official.

(c) A used or fired military munition is a solid waste:

1. When transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or

2. If recovered, collected, and then disposed of by burial, or landfilling either on or off a range.

(d) For purposes of RCRA section 1004(27), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of the range must maintain a record of the event for as long as any threat remains. The record must include the type of munition and its location (to the extent the location is known).

(4) Standards applicable to the transportation of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in transportation.

1. Waste military munitions that are being transported and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 335-14-2, are listed or identified as a hazardous waste (and thus are subject to regulation under 335-14-1 through 335-14-9), unless all the following conditions are met:

(i) The waste military munitions are not chemical agents or chemical munitions;

(ii) The waste military munitions must be transported in accordance with the Department of Defense shipping controls applicable to the transport of military munitions;

(iii) The waste military munitions must be transported from a military owned or operated installation to a military owned or operated treatment, storage, or disposal facility; and

(iv) The transporter of the waste must provide oral notice to the Department within 24 hours from the time the transporter becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of 335-14-7-.13(4)(a)1. that may endanger health or the environment. In addition,

a written submission describing the circumstances shall be provided within 5 days from the time the transporter becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of 335-14-7-.13(4)(a)1.

2. If any waste military munitions shipped under 335-14-7-.13(4)(a)1. are not received by the receiving facility within 45 days of the day the waste was shipped, the owner or operator of the receiving facility must report this non-receipt to the Department within 5 days.

3. The exemption in 335-14-7-.13(4)(a)1. from regulation as hazardous waste shall apply only to the transportation of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to storage, treatment, or disposal.

4. The conditional exemption in 335-14-7-.13(4)(a)1. applies only so long as all of the conditions in 335-14-7-.13(4)(a)1. are met.

(b) Reinstatement of exemption. If any waste military munition loses its exemption under 335-14-7-.13(4)(a)1., an application may be filed with the Department for reinstatement of the exemption from hazardous waste transportation regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of 335-14-7-.13(4)(a)1. If the Department finds that reinstatement of the exemption is appropriate based on factors such as the transporter's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Department may reinstate the exemption under 335-14-7-.13(4)(a)1. If the Department does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Department may terminate a conditional exemption reinstated by default in the preceding sentence if the Department finds that reinstatement is inappropriate based on factors such as the transporter's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the exemption under 335-14-7-.13(4)(a)1., the Department may specify additional conditions as are necessary to ensure and document proper transportation to protect human health and the environment.

(c) Amendments to DOD shipping controls. The Department of Defense shipping controls applicable to the transport of military munitions referenced in 335-14-7-.13(4)(a)1.(ii) are Government Bill of Lading (GBL) (GSA Standard Form 1109), requisition tracking form DD Form 1348, the Signature and Talley Record (DD Form 1907), Special Instructions for Motor Vehicle Drivers (DD Form 836), and the Motor Vehicle Inspection Report (DD Form 626) in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the Department of Defense shipping controls shall become effective for purposes of 335-14-7-.13(4)(a)1. on the date the Department of Defense publishes notice in the Federal Register that the shipping controls referenced in 335-14-7-.13(4)(a)1.(ii) have been amended.

(5) Standards applicable to emergency responses. Explosives and munitions emergencies involving military munitions or explosives are subject to 335-14-3-.01(1)(i), 335-14-4-.01(1)(e), 335-14-5-.01(1)(g)8., 335-14-6-.01(1)(c)11., and 335-14-8-.01(1)(c)3., or alternatively to 335-14-8-.06(1).

(6) Standards applicable to the storage of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in storage.

1. Waste military munitions in storage that exhibit a hazardous waste characteristic or are listed as hazardous waste under 335-14-2, are listed or identified as a hazardous waste (and thus are subject to regulation under 335-14-1 through 335-14-17), unless all the following conditions are met:

(i) The waste military munitions are not chemical agents or chemical munitions.

(ii) The waste military munitions must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB).

(iii) The waste military munitions must be stored in accordance with the DDESB storage standards applicable to waste military munitions.

(iv) Within 90 days of March 27, 1998 or within 90 days of when a storage unit is first used to store waste military munitions, whichever is later, the owner or operator must notify the Department of the location of any waste storage unit used to store waste military munitions for which the conditional exemption in 335-14-7-.13(6)(a)1. is claimed.

(v) The owner or operator must provide oral notice to the Department within 24 hours from the time the owner or operator becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of 335-14-7-.13(6)(a)1. that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within 5 days from the time the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of 335-14-7-.13(6)(a)1.

(vi) The owner or operator must inventory the waste military munitions at least annually, must inspect the waste military munitions at least quarterly for compliance with the conditions of 335-14-7-.13(6)(a)1., and must maintain records of the findings of these inventories and inspections for at least three years.

(vii) Access to the stored waste military munitions must be limited to appropriately trained and authorized personnel.

2. The conditional exemption in 335-14-7-.13(6)(a)1. from regulation as hazardous waste shall apply only to the storage of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to transportation, treatment, or disposal.

3. The conditional exemption in 335-14-7-.13(6)(a)1. applies only so long as all of the conditions in 335-14-7-.13(6)(a)1. are met.

(b) Notice of termination of waste storage. The owner or operator must notify the Department when a storage unit identified in 335-14-7-.13(6)(a)1.(iv) will no longer be used to store waste military munitions.

(c) Reinstatement of conditional exemption. If any waste military munition loses its conditional exemption under 335-14-7-.13(6)(a)1., an application may be filed with the Department for reinstatement of the conditional exemption from hazardous waste storage regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of 335-14-7-.13(6)(a)1. If the Department finds that reinstatement of the conditional exemption is appropriate based on factors such as the owner's or operator's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Department may reinstate the conditional exemption under 335-14-7-.13(6)(a)1. If the Department does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Department may terminate a conditional exemption reinstated by default in the preceding sentence if he/she finds that reinstatement is inappropriate based on factors such as the owner's or operator's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the conditional exemption under 335-14-7-.13(6)(a)1., the Department may specify additional conditions as are necessary to ensure and document proper storage to protect human health and the environment.

(d) Waste chemical munitions.

1. Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 335-14-2, are listed or identified as a hazardous waste and shall be subject to the applicable regulatory requirements of RCRA subtitle C.

2. Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under 335-14-2, are not subject to the storage prohibition in RCRA section 3004(j), codified at 335-14-9-.05(1).

(e) Amendments to DDESB storage standards. The DDESB storage standards applicable to waste military munitions, referenced in

paragraph (a)1.(iii) of this section, are DOD 6055.9–STD ("DOD Ammunition and Explosive Safety Standards"), in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the DDESB storage standards shall become effective for purposes of 335-14-7-.13(6)(a)1. on the date the Department of Defense publishes notice in the Federal Register that the DDESB standards referenced in 335-14-7-.13(6)(a)1. have been amended.

(7) Standards applicable to the treatment and disposal of waste military munitions. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 335-14-1 through 335-14-9.

Author: C. Edwin Johnston; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: March 27, 1998.
Amended: April 13, 2001; March 31, 2005; March 31, 2009.

335-14-7-.14 Conditional Exemption for Low-Level Mixed Waste Storage, Treatment, Transportation, and Disposal.

(1) [Reserved]

(2) Storage and treatment conditional exemption applicability. The storage and treatment conditional exemption exempts LLMW from the regulatory definition of hazardous waste in 335-14-2-.01(3) if the waste meets the eligibility criteria in 335-14-7-.14(3) and the generator meets the conditions in 335-14-7-.14(4).

(3) Storage and treatment conditional exemption eligibility. LLMW is eligible for this conditional exemption if it is generated and managed under a single NRC or NRC Agreement State license. (Mixed waste generated at a facility with a different license number and shipped to another facility for storage or treatment requires a permit and is ineligible for this exemption. In addition, NARM waste is ineligible for this exemption.)

(4) Storage and treatment conditional exemption generator conditions.

(a) In order for LLMW to qualify for this exemption, the generator must notify the Department in writing by certified delivery that a conditional exemption for the stored LLMW is being claimed. The dated notification must include the generator's name, location address, EPA identification number, NRC or NRC Agreement State license number, the waste code(s) and storage unit(s) for which the exemption is sought, and a statement that the conditions of 335-14-7-.14(4) have been met. The notification must be signed by an authorized representative who certifies that the information in the notification is true, accurate, and complete. The Department must receive the notification either within 90 days after the effective date of this rule or within 90 days after a storage unit is first used to store conditionally exempt LLMW.

(b) To qualify for and maintain an exemption for LLMW, the generator must:

1. Store the waste in tanks or containers in compliance with the requirements of the NRC or NRC Agreement State license that apply to the proper storage of LLW (not including those license requirements that relate solely to recordkeeping);

2. Store the waste in tanks or containers in compliance with chemical compatibility requirements of a tank or container in 335-14-5-.09(8), 335-14-5-.10(10), 335-14-6-.09(8), or 335-14-6-.10(10);

3. Certify that facility personnel who manage stored conditionally exempt LLMW are trained in a manner that ensures that the conditionally exempt waste is safely managed and includes training in chemical waste management and hazardous materials incidents response that meets the personnel training standards found in 335-14-6-.02(7)(a)3.;

4. Conduct an inventory of stored conditionally exempt LLMW at least annually (no more than 365 days from the date of the previous annual inventory) and inspect it at least quarterly (no more than 90 days from the date of the previous quarterly inspection) for compliance with 335-14-7-.14; and

5. Maintain an accurate emergency plan and provide it to all local authorities who may have to respond to a fire, explosion, or release of hazardous waste or hazardous constituents. The plan must describe emergency response arrangements with local authorities; describe evacuation plans; list the names, addresses, and telephone numbers of all facility personnel qualified to work with local authorities as emergency coordinators; and list emergency equipment.

(5) <u>Storage and treatment conditional exemption waste treatment.</u> The generator may treat LLMW within a tank or container in accordance with the terms of the generator's NRC or NRC Agreement State license and the Alabama Hazardous Waste Management and Minimization Act. Treatment that cannot be done in a tank or container without a RCRA permit (such as incineration) is not allowed under this exemption.

(6) <u>Loss of storage and treatment conditional exemption.</u>

(a) LLMW will automatically lose the storage and treatment conditional exemption if the generator fails to meet any of the conditions specified in 335-14-7-.14(4). LLMW that has lost the exemption must immediately be managed as RCRA hazardous waste and the storage unit storing the LLMW immediately becomes subject to RCRA hazardous waste container and/or tank storage requirements.

1. A generator who fails to meet any of the conditions specified in 335-14-7-.14(4) must report to ADEM and the NRC, or the oversight agency in the NRC Agreement State, in writing by certified delivery within 30 days after

learning of the failure. The report must be signed by an authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

(i) The specific condition(s) which the generator failed to meet;

(ii) A description of the LLMW (including the waste name, hazardous waste codes and quantity) and storage location at the facility; and

(iii) The date(s) on which the failure(s) occurred.

2. If the failure to meet any of the conditions may endanger human health or the environment, the generator must also immediately notify ADEM orally within 24 hours and follow up with a written notification within five days after the failure. Failures that may endanger human health or the environment include, but are not limited to, discharge of a CERCLA reportable quantity or other leaking or exploding tanks or containers, or detection of radionuclides above background or hazardous constituents in the leachate collection system of a storage area. If the failure may endanger human health or the environment, the provisions of the emergency plan must be implemented.

(b) The Department may terminate the conditional exemption for LLMW, or require additional conditions to claim a conditional exemption, for serious or repeated noncompliance with any requirement(s) of 335-14-7-.14.

(7) <u>Reclaiming a lost storage and treatment conditional exemption.</u>

(a) A generator may reclaim a lost storage and treatment exemption for LLMW if:

1. The conditions specified in 335-14-7-.14(4) are met; and

2. The generator notifies ADEM by certified delivery that a lost exemption for LLMW is being reclaimed. The notice must be signed by an authorized representative certifying that the information contained in the notice is true, complete, and accurate. The notice must:

(i) Explain the circumstances of each failure.

(ii) Certify that the generator has corrected each failure that caused the exemption for LLMW to be lost and that the generator again meets all the conditions as of the date of the notice.

(iii) Describe plans that have been implemented, listing specific steps taken, to ensure the conditions will be met in the future.

(iv) Include any other information ADEM should consider when reviewing the notice reclaiming the exemption.

(b) The Department may terminate a reclaimed conditional exemption if the generator's claim is found to be inappropriate based on factors including, but not limited to, the following: failure to correct the problem; unsatisfactory explanation of the circumstances of the failure; or failure to implement a plan with steps to prevent another failure to meet the conditions of 335-14-7-.14(4). In reviewing a reclaimed conditional exemption under this section, the Department may add conditions to the exemption to ensure that waste management during storage and treatment of the LLMW will protect human health and the environment.

(8) Storage and treatment conditional exemption recordkeeping.

(a) In addition to those records required by the NRC or NRC Agreement State license, the following records must be maintained:

1. Initial notification records, return receipts, reports of failure(s) to meet the exemption conditions, and all records supporting any reclaim of an exemption;

2. Records of LLMW annual inventories and quarterly inspections;

3. Certification that facility personnel who manage stored mixed waste are trained in safe management of LLMW including training in chemical waste management and hazardous materials incidents response; and

4. Emergency plan as specified in 335-14-7-.14(4)(b).

(b) Records concerning notification, personnel trained, and the emergency plan must be maintained for as long as this exemption is claimed and for three years thereafter, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer. Records concerning annual inventories and quarterly inspections must be maintained for three years after the waste is sent for disposal, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer.

(9) Storage and treatment conditional exemption ineligibility.

(a) When LLMW has met the requirements of the generator's NRC or NRC Agreement State license for decay-in-storage and can be disposed of as non-radioactive waste, then the conditional exemption for storage no longer applies. On that date, the waste is subject to hazardous waste regulation under the relevant sections of 335-14-1 through 335-14-9, and the time period for accumulation of a hazardous waste as specified in 335-14-3-.01(3) begins.

(b) When conditionally exempt LLMW which has been generated and stored under a single NRC or NRC Agreement State license number is removed from storage, it is no longer eligible for the storage and treatment

exemption. However, the waste may be eligible for the transportation and disposal conditional exemption at 335-14-7-.14(11).

(10) Storage unit closure. Interim status and permitted storage units that have been used to store only LLMW prior to the effective date of 335-14-7-.14 and, after that date, store only LLMW which becomes exempt under 335-14-7-.14, are not subject to the closure requirements of 335-14-5 and 335-14-6. Storage units (or portions of units) that have been used to store both LLMW and non-mixed hazardous waste prior to the effective date of 335-14-7-.14 or are used to store both after that date remain subject to closure requirements with respect to the non-mixed hazardous waste.

(11) Transportation and disposal conditional exemption applicability. The transportation and disposal conditional exemption exempts waste from the regulatory definition of hazardous waste in 335-14-2-.01(3) if the waste meets the eligibility criteria of 335-14-7-.14(12) and the generator meets the conditions in 335-14-7-.14(13).

(12) Transportation and disposal conditional exemption eligibility.

(a) Eligible waste must be:

1. A LLMW, as defined in 335-14-1-.02, that meets the waste acceptance criteria of a LLRWDF; and/or

2. An eligible NARM waste, defined in 335-14-1-.02.

(b) Reserved.

(13) Transportation and disposal conditional exemption conditions.

(a) To qualify for and maintain the transportation and disposal conditional exemption, the following conditions must be met:

1. The eligible waste must meet or be treated to meet LDR treatment standards, as described in 335-14-7-.14(14).

2. The generator must manifest and transport the exempted waste according to NRC regulations, as described in 335-14-7-.14(15).

3. The exempted waste must be in containers when it is disposed of in the LLRWDF, as described in 335-14-7-.14(18).

4. The exempted waste must be disposed of at a designated LLRWDF, as described in 335-14-7-.14(17).

(b) Reserved.

(14) Transportation and disposal conditional exemption treatment standards. LLMW or eligible NARM waste must meet LDR treatment standards specified in 335-14-9-.04.

(15) Transportation and disposal conditional exemption manifest and transportation condition. If the generator is not already subject to NRC or NRC Agreement State equivalent manifest and transportation regulations for the shipment of waste, the generator must meet the manifest requirements under 10 CFR 20.2006 (or NRC Agreement State equivalent regulations) and the transportation requirements under 10 CFR 1.5 (or NRC Agreement State equivalent regulations) to ship the exempted waste.

(16) Transportation and disposal conditional exemption effective date.

(a) The exemption becomes effective once all the following have occurred:

1. The eligible waste meets the applicable LDR treatment standards;

2. The generator has received return receipts confirming notification of ADEM and the LLRWDF, as described in 335-14-7-.14(19);

3. The waste has been packaged and prepared for shipment according to NRC Packaging and Transportation regulations found under 10 CFR 71 (or NRC Agreement State equivalent regulations) and a manifest has been prepared according to NRC manifest regulations found under 10 CFR 20 (or NRC Agreement State equivalent regulations); and

4. The waste has been placed on a transportation vehicle destined for a LLRWDF licensed by NRC or an NRC Agreement State.

(b) Reserved.

(17) Transportation and disposal conditional exemption acceptable disposal facilities. Exempted waste must be disposed of in a LLRWDF that is regulated and licensed by NRC under 10 CFR 61 or by an NRC Agreement State under equivalent State regulations, including State of Alabama NARM licensing regulations for eligible NARM.

(18) Transportation and disposal conditional exemption container requirements.

(a) Exempted waste must be placed in containers before it is disposed.

(b) The container must be:

1. A carbon steel drum; or

2. An alternative container with equivalent containment performance in the disposal environment as a carbon steel drum; or

3. A high integrity container as defined by NRC.

(19) Transportation and disposal conditional exemption notification requirements.

(a) A one-time notice must be provided to ADEM stating that the transportation and disposal conditional exemption is being claimed prior to the initial shipment of an exempted waste to a LLRWDF. The dated written notice, sent by certified delivery, must include facility name, address, phone number, and EPA identification number.

(b) The LLRWDF receiving the exempted waste must be notified by certified delivery before each shipment of exempted waste. The waste must not be shipped until after the generator has received the return receipt of the notice to the LLRWDF. This notification must include the following:

1. A statement by the generator claiming the exemption for the waste;

2. A statement that the eligible waste meets applicable LDR treatment standards;

3. The facility's name, address, and EPA identification number;

4. The applicable hazardous waste codes prior to the exemption of the waste streams;

5. A statement that the exempted waste must be placed in a container according to 335-14-7-.14(18) prior to disposal in order for the waste to remain exempt under the transportation and disposal conditional exemption of 335-14-7-.14;

6. The manifest number of the shipment that will contain the exempted waste; and

7. A certification that all the information provided is true, complete, and accurate. An authorized representative of the generator must sign the statement.

(20) Transportation and disposal conditional exemption recordkeeping.

(a) In addition to those records required by an NRC or NRC Agreement State license, the generator must maintain the following records:

1. Documents required by the applicable recordkeeping requirements of 335-14-5-.05(4), 335-14-6-.05(4), and 335-14-9-.01(7) to

demonstrate that the waste has met LDR treatment standards prior to claiming the exemption;

2. Copies of all notifications and return receipts required by 335-14-7-.14(21) and 335-14-7-.14(22) for three years after the exempted waste is sent for disposal;

3. Copies of all notifications and return receipts required by 335-14-7-.14(19)(a) for three years after the last exempted waste is sent for disposal;

4. Copies of the notification and return receipts required by 335-14-7-.14(19)(b) for three years after the exempted waste is sent for disposal; and

(b) If not already required by the NRC or NRC Agreement State equivalent manifest and transportation regulations, all other documents related to tracking the exempted waste as required under 10 CFR 20.2006 or NRC Agreement State equivalent regulations, including applicable NARM requirements, in addition to the records specified in 335-14-7-.14(20)(a)1. through 4.

(21) Loss of transportation and disposal conditional exemption.

(a) Any waste will automatically lose the transportation and disposal exemption if the generator fails to manage it in accordance with all of the conditions specified in 335-14-7-.14(13).

1. When failing to meet any of the conditions specified in 335-14-7-.14(13) for any wastes, the generator must report to ADEM, in writing by certified delivery, within 30 days after learning of the failure. The report must be signed by an authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

(i) The specific condition(s) that the generator failed to meet for the waste;

(ii) A description of the waste (including the waste name, hazardous waste codes and quantity) that lost the exemption; and

(iii) The date(s) on which the failure(s) occurred.

2. If the failure to meet any of the conditions may endanger human health or the environment, the generator must also immediately notify ADEM orally within 24 hours and follow up with a written notification within 5 days after learning of the failure.

(b) The Department may terminate a generator's ability to claim a conditional exemption, or require additional conditions to claim a conditional exemption, for serious or repeated noncompliance with any requirement(s) of 335-14-7-.14.

(22) Reclaiming a lost transportation and disposal conditional exemption.

(a) A generator may reclaim the transportation and disposal exemption for a waste after receiving a return receipt confirming that ADEM received a notification of the loss of the exemption specified in 335-14-7-.14(21)(a) and if:

1. The generator again meets the conditions specified in 335-14-7-.14(13) for the waste; and

2. The generator notifies ADEM, by certified delivery, that the exemption for the waste is being reclaimed. The notice must be signed by an authorized representative certifying that the information provided is true, accurate, and complete and must:

(i) Explain the circumstances of each failure;

(ii) Certify that each failure that caused the loss of the exemption for the waste has been corrected and that the generator again meets all conditions for the waste as of the date of the notice;

(iii) Describe plans that have been implemented, listing the specific steps taken, to ensure that conditions will be met in the future; and

(iv) Include any other information ADEM should consider when reviewing the notice reclaiming the exemption.

(b) The Department may terminate a reclaimed conditional exemption if the generator's claim is found to be inappropriate based on factors including, but not limited to: failure to correct the problem; unsatisfactory explanation of the circumstances of the failure; or failure to implement a plan with steps to prevent another failure to meet the conditions of 335-14-7-.14(13). In reviewing a reclaimed conditional exemption under 335-14-7-.14, the Department may add conditions to the exemption to ensure that transportation and disposal activities will protect human health and the environment.

Author: Michael B. Champion; Vernon H. Crockett; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11, 22-30-12, 22-30-14, 22-30-15, 22-30-16, 22-30-19, 22-30-20.
History: March 15, 2002.
Amended: May 27, 2004; March 31, 2005; March 31, 2009; April 6, 2018.

335-14-7-.15 [Reserved]

335-14-7-.16 Hazardous Waste Pharmaceuticals

(1) Applicability

(a) A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to 335-14-3-.01(4) and is not subject to 335-14-7-.16, except for 335-14-7-.16(5) and 335-14-7-.16(7) and the optional provisions of 335-14-7-.16(4).

(b) A healthcare facility that is a very small quantity generator when counting all of its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, has the option of complying with 335-141-7-.16(1)(d) for the management of its hazardous waste pharmaceuticals as an alternative to complying with 335-14-3-.01(4) and the optional provisions of 335-14-7-.16(4).

(c) A healthcare facility or reverse distributor remains subject to all applicable hazardous waste regulations with respect to the management of its non-pharmaceutical hazardous waste.

(d) With the exception of healthcare facilities identified in 335-14-7-.16(1)(a), a healthcare facility is subject to the following in lieu of 335-14-3 through 335-14-6:

1. Sections 335-14-7-.16(2) and 335-14-7-.16(5) through 335-14-7-.16(8) with respect to the management of:

(i) Non-creditable hazardous waste pharmaceuticals, and

(ii) Potentially creditable hazardous waste pharmaceuticals if they are not destined for a reverse distributor.

2. 335-14-7-.16(2)(a), 335-14-7-.16(3), 335-14-7-.16(5) through 335-14-7-.16(7) and 335-14-7-.16(9) with respect to the management of potentially creditable hazardous waste pharmaceuticals that are prescription pharmaceuticals and are destined for a reverse distributor.

(e) A reverse distributor is subject to 335-14-7-.16(5) through 335-14-7-.16(10) in lieu of 335-14-3 through 335-14-6 with respect to the management of hazardous waste pharmaceuticals.

(f) Hazardous waste pharmaceuticals generated or managed by entities other than healthcare facilities and reverse distributors (e.g., pharmaceutical manufacturers and reverse logistics centers) are not subject to this subpart. Other generators are subject to 335-14-3 for the generation and accumulation of hazardous wastes, including hazardous waste pharmaceuticals.

(g) The following are not subject to 335-14-1 through 335-14-11, except as specified:

1. Pharmaceuticals that are not solid waste, as defined by 335-14-2-.01(2) because they are legitimately used/reused (e.g., lawfully donated for their intended purpose) or reclaimed.

2. Over-the-counter pharmaceuticals, dietary supplements, or homeopathic drugs that are not solid wastes, as defined by 335-14-2-.01(2), because they have a reasonable expectation of being legitimately used/reused (e.g., lawfully redistributed for their intended purpose) or reclaimed.

3. Pharmaceuticals being managed in accordance with a recall strategy that has been approved by the Food and Drug Administration in accordance with 21 CFR part 7 subpart C. This subpart does apply to the management of the recalled hazardous waste pharmaceuticals after the Food and Drug Administration approves the destruction of the recalled items.

4. Pharmaceuticals being managed in accordance with a recall corrective action plan that has been accepted by the Consumer Product Safety Commission in accordance with 16 CFR part 1115. This subpart does apply to the management of the recalled hazardous waste pharmaceuticals after the Consumer Product Safety Commission approves the destruction of the recalled items.

5. Pharmaceuticals stored according to a preservation order, or during an investigation or judicial proceeding until after the preservation order, investigation, or judicial proceeding has concluded and/or a decision is made to discard the pharmaceuticals.

6. Investigational new drugs for which an investigational new drug application is in effect in accordance with the Food and Drug Administration's regulations in 21 CFR part 312. This subpart does apply to the management of the investigational new drug after the decision is made to discard the investigational new drug or the Food and Drug Administration approves the destruction of the investigational new drug, if the investigational new drug is a hazardous waste.

7. Household waste pharmaceuticals, including those that have been collected by an authorized collector (as defined by the Drug Enforcement Administration), provided the authorized collector complies with the conditional exemption in 335-14-7-.16(6)(a)2. and 335-14-7-.16(6)(b).

(2) <u>Standards for healthcare facilities managing non-creditable hazardous waste pharmaceuticals</u>

(a) <u>Notification and withdrawal from this subpart for healthcare facilities managing hazardous waste pharmaceuticals</u>

1. <u>Notification</u>. A healthcare facility must notify the Department, using ADEM Form 8700-12 (Notification of Regulated Waste Activity), that it is a healthcare facility operating under this subpart. A healthcare facility is not required to fill out Schedule A part II.B (Characteristics of Nonlisted Hazardous Waste) and II.C (Listed Hazardous Wastes) of the Notification of Regulated Waste Activity with respect to its hazardous waste pharmaceuticals. A healthcare facility must submit a separate notification (Notification of Regulated Waste Activity) for each site or EPA identification number.

(i) A healthcare facility that already has an EPA identification number must notify the Department that it is a healthcare facility as part of its next Notification of Regulated Waste Activity, if it is required to submit one; or if not required to submit a Notification of Regulated Waste Activity, within 60 days of the effective date of this subpart, or within 60 days of becoming subject to this subpart.

(ii) A healthcare facility that does not have an EPA identification number must obtain one by notifying the Department that it is a healthcare facility as part of its next Notification of Regulated Waste Activity, if it is required to submit one; or if not required to submit a Notification of Regulated Waste Activity, within 60 days of the effective date of this subpart, or within 60 days of becoming subject to this subpart.

(iii) A healthcare facility must keep a copy of its notification on file for as long as the healthcare facility is subject to 335-14-7-.16.

2. Withdrawal. A healthcare facility that operated under 335-14-7-.16 but is no longer subject to 335-14-7-.16, because it is a very small quantity generator under 335-14-3-.01(4), and elects to withdraw from 335-14-7-.16, must notify the Department using ADEM Form 8700-12 (Notification of Regulated Waste Activity) that it is no longer operating under 335-14-7-.16. A healthcare facility is not required to fill out Schedule A part II.B (Characteristics of Nonlisted Hazardous Waste) and II.C (Listed Hazardous Wastes) of the Notification of Regulated Waste Activity with respect to its hazardous waste pharmaceuticals. A healthcare facility must submit a separate notification (Notification of Regulated Waste Activity) for each EPA identification number.

(i) A healthcare facility must submit the Notification of Regulated Waste Activity notifying that it no longer intends to operate subject to 335-14-7-.16 before it begins operating under the conditional exemption of 335-14-3-.01(4).

(ii) A healthcare facility must keep a copy of its withdrawal on file for three years from the date of signature on the notification of its withdrawal.

(b) Training of personnel managing non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility must ensure that all personnel that manage non-creditable hazardous waste pharmaceuticals are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(c) Hazardous waste determination for non-creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a non-creditable pharmaceutical must determine whether that pharmaceutical is a hazardous waste pharmaceutical (i.e., it exhibits a characteristic identified in 335-14-2-.03 or is listed in 335-14-2-.04) in order to determine whether the waste is subject to 335-14-7-.16. A healthcare facility may choose to manage its non-

hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals under 335-14-7-.16.

(d) Standards for containers used to accumulate non-creditable hazardous waste pharmaceuticals at healthcare facilities.

1. A healthcare facility must place non-creditable hazardous waste pharmaceuticals in a container that is structurally sound, compatible with its contents, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

2. A healthcare facility that manages ignitable or reactive non-creditable hazardous waste pharmaceuticals, or that mixes or commingles incompatible non-creditable hazardous waste pharmaceuticals must manage the container so that it does not have the potential to:

(i) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the container of non-creditable hazardous waste pharmaceuticals; or

(v) Through other like means threaten human health or the environment.

3. A healthcare facility must keep containers of non-creditable hazardous waste pharmaceuticals closed and secured in a manner that prevents unauthorized access to its contents.

4. A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals and non-hazardous non-creditable waste pharmaceuticals in the same container, except that non-creditable hazardous waste pharmaceuticals prohibited from being combusted because of the dilution prohibition of 40 CFR 268.3(c) must be accumulated in separate containers and labeled with all applicable hazardous waste numbers (i.e., hazardous waste codes).

(e) Labeling containers used to accumulate non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility must label or clearly mark each container of non-creditable hazardous waste pharmaceuticals with the phrase “Hazardous Waste Pharmaceuticals.”

(f) Maximum accumulation time for non-creditable hazardous waste pharmaceuticals at healthcare facilities.

1. A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals on site for one year or less without a permit or having interim status.

2. A healthcare facility that accumulates non-creditable hazardous waste pharmaceuticals on-site must demonstrate the length of time that the non-creditable hazardous waste pharmaceuticals have been accumulating, starting from the date it first becomes a waste. A healthcare facility may make this demonstration by any of the following methods:

(i) Marking or labeling the container of non-creditable hazardous waste pharmaceuticals with the date that the non-creditable hazardous waste pharmaceuticals became a waste;

(ii) Maintaining an inventory system that identifies the date the non-creditable hazardous waste pharmaceuticals being accumulated first became a waste;

(iii) Placing the non-creditable hazardous waste pharmaceuticals in a specific area and identifying the earliest date that any of the non-creditable hazardous waste pharmaceuticals in the area became a waste.

(g) Land disposal restrictions for non-creditable hazardous waste pharmaceuticals. The non-creditable hazardous waste pharmaceuticals generated by a healthcare facility are subject to 335-14-9. A healthcare facility that generates non-creditable hazardous waste pharmaceuticals must comply with 335-14-9-.01(7), except that it is not required to identify the hazardous waste numbers (i.e., hazardous waste codes) on the land disposal restrictions notification.

(h) Procedures for healthcare facilities for managing rejected shipments of non-creditable hazardous waste pharmaceuticals. A healthcare facility that sends a shipment of non-creditable hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions of 335-14-5-.05(3) or 335-14-6-.05(3) may accumulate the returned non-creditable hazardous waste pharmaceuticals on site for up to an additional 90 days provided the rejected or returned shipment is managed in accordance with 335-14-7-.16(2)(d) and (e). Upon receipt of the returned shipment, the healthcare facility must:

1. Sign either:

(i) Item 18c of the original manifest, if the original manifest was used for the returned shipment; or

(ii) Item 20 of the new manifest, if a new manifest was used for the returned shipment;

2. Provide the transporter a copy of the manifest;

3. Within 30 days of receipt of the rejected shipment, send a copy of the manifest to the designated facility that returned the shipment to the healthcare facility; and

4. Within 90 days of receipt of the rejected shipment, transport or offer for transport the returned shipment in accordance with the shipping standards of 335-14-7-.16(8)(a).

(i) Reporting by healthcare facilities for non-creditable hazardous waste pharmaceuticals

1. Biennial reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under 335-14-3-.04(2), with respect to non-creditable hazardous waste pharmaceuticals managed under this subpart.

2. Exception reporting by healthcare facilities for a missing copy of the manifest.

(i) For shipments from a healthcare facility to a designated facility:

(I) If a healthcare facility does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 60 days of the date the non-creditable hazardous waste pharmaceuticals were accepted by the initial transporter, the healthcare facility must submit:

I. A legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the Department; and

II. A handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

(II) [Reserved]

(ii) For shipments rejected by the designated facility and shipped to an alternate facility.

(I) If a healthcare facility does not receive a copy of the manifest for a rejected shipment of the non-creditable hazardous waste pharmaceuticals that is forwarded by the designated facility to an alternate facility (using appropriate manifest procedures), with the signature of the owner or operator of the alternate facility, within 60 days of the date the non-creditable hazardous waste was accepted by the initial transporter forwarding the shipment of non-creditable hazardous waste pharmaceuticals from the designated facility to the alternate facility, the healthcare facility must submit:

I. A legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the Department; and

II. A handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

(II) [Reserved]

3. Additional reports. The Department may require healthcare facilities to furnish additional reports concerning the quantities and disposition of non-creditable hazardous waste pharmaceuticals.

(j) Recordkeeping by healthcare facilities for non-creditable hazardous waste pharmaceuticals.

1. A healthcare facility must keep a copy of each manifest signed in accordance with 335-14-3-.02(4)(a) for three years or until it receives a signed copy from the designated facility which received the non-creditable hazardous waste pharmaceuticals. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

2. A healthcare facility must keep a copy of each exception report for a period of at least three years from the date of the report.

3. A healthcare facility must keep records of any test results, waste analyses, or other determinations made to support its hazardous waste determination(s) consistent with 335-14-3-.01(2), for at least three years from the date the waste was last sent to on-site or off-site treatment, storage or disposal. A healthcare facility that manages all of its non-creditable non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals is not required to keep documentation of hazardous waste determinations.

4. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Department.

5. All records must be readily available upon request by an inspector.

(k) Response to spills of non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility must immediately contain all spills of non-creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with the requirements of this subpart.

(l) Accepting non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under 335-14-3-.01(4), without a permit or without having interim status, provided the receiving healthcare facility:

1. Is under the control of the same person (as defined in 335-14-1-.02) as the very small quantity generator healthcare facility that is sending the non-creditable hazardous waste pharmaceuticals off-site ("control," for the purposes of this rule, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in 335-14-1-.01(2) shall not be deemed to "control" such healthcare facilities) or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;

2. Is operating under 335-14-7-.16 for the management of its non-creditable hazardous waste pharmaceuticals;

3. Manages the non-creditable hazardous waste pharmaceuticals that it receives from off site in compliance with 335-14-7-.16; and

4. Keeps records of the non-creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.

(3) Standards for healthcare facilities managing potentially creditable hazardous waste pharmaceuticals.

(a) Hazardous waste determination for potentially creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a potentially creditable pharmaceutical must determine whether the potentially creditable pharmaceutical is a potentially creditable hazardous waste pharmaceutical (i.e., it is listed in 335-14-2-.04 or exhibits a characteristic identified in 335-14-2-.03). A healthcare facility may choose to manage its potentially creditable non-hazardous waste pharmaceuticals as potentially creditable hazardous waste pharmaceuticals under 335-14-7-.16.

(b) Accepting potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under 335-14-3-.01(4), without a permit or without having interim status, provided the receiving healthcare facility:

1. Is under the control of the same person, as defined in 335-14-1-.01(2), as the very small quantity generator healthcare facility that is

sending the potentially creditable hazardous waste pharmaceuticals off site, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;

2. Is operating under 335-14-7-.16 for the management of its potentially creditable hazardous waste pharmaceuticals;

3. Manages the potentially creditable hazardous waste pharmaceuticals that it receives from off site in compliance with 335-14-7-.16; and

4. Keeps records of the potentially creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.

(c) Prohibition. Healthcare facilities are prohibited from sending hazardous wastes other than potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(d) Biennial Reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under 335-14-3-.04(2) with respect to potentially creditable hazardous waste pharmaceuticals managed under this subpart.

(e) Recordkeeping by healthcare facilities.

1. A healthcare facility that initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor must keep the following records (paper or electronic) for each shipment of potentially creditable hazardous waste pharmaceuticals for three years from the date of shipment:

(i) The confirmation of delivery; and

(ii) The shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.

2. The periods of retention referred to in this rule are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Department.

3. All records must be readily available upon request by the Department.

(f) Response to spills of potentially creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility must immediately contain all spills of potentially creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with 335-14-7-.16.

(4) Healthcare facilities that are very small quantity generators for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste.

(a) Potentially creditable hazardous waste pharmaceuticals. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(b) Off-site collection of hazardous waste pharmaceuticals generated by a healthcare facility that is a very small quantity generator. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its hazardous waste pharmaceuticals off-site to another healthcare facility, provided:

1. The receiving healthcare facility meets the conditions in 335-14-7-.16(2)(l) and 335-14-7-.16(3)(b), as applicable, or

2. The very small quantity generator healthcare facility meets the conditions in 335-14-3-.01(4)(a)5.(viii) and the receiving large quantity generator meets the conditions in 335-14-3-.01(7)(f).

(c) Long-term care facilities that are very small quantity generators. A long-term care facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may dispose of its hazardous waste pharmaceuticals (excluding contaminated personal protective equipment or clean-up materials) in an on-site collection receptacle of an authorized collector (as defined by the Drug Enforcement Administration) that is registered with the Drug Enforcement Administration provided the contents are collected, stored, transported, destroyed and disposed of in compliance with all applicable Drug Enforcement Administration regulations for controlled substances.

(d) Long-term care facilities with 20 beds or fewer. A long-term care facility with 20 beds or fewer is presumed to be a very small quantity generator subject to 335-14-3-.01(4) for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste and not subject to 335-14-7-.16, except for 335-14-7-.16(5) and 335-14-7-.16(7) and the other optional provisions of 335-14-7-.16(4). The Department has the responsibility to demonstrate that a long-term care facility with 20 beds or fewer generates quantities of hazardous waste that are in excess of the very small quantity generator limits as defined in 335-14-1-.01(2). A long-term care facility with more than 20 beds that operates as a very small quantity generator under 335-14-3-.01(4) must demonstrate that it generates quantities of hazardous waste that are within the very small quantity generator limits as defined by 335-14-1-.01(2).

(5) Prohibition of sewering hazardous waste pharmaceuticals. All healthcare facilities—including very small quantity generators operating under 335-14-3-.01(4) in lieu of 335-14-7-.16—and reverse distributors are prohibited from discharging hazardous waste pharmaceuticals to a sewer system

that passes through to a publicly-owned treatment works. Healthcare facilities and reverse distributors remain subject to the prohibitions in 40 CFR 403.5(b)(1).

(6) Conditional exemptions for hazardous waste pharmaceuticals that are also controlled substances and household waste pharmaceuticals collected in a take-back event or program.

(a) Conditional exemptions. Provided the conditions of 335-14-7-.16(6)(b) are met, the following are exempt from 335-14-2 through 335-14-11:

1. Hazardous waste pharmaceuticals that are also listed on a schedule of controlled substances by the Drug Enforcement Administration in 21 CFR part 1308, and

2. Household waste pharmaceuticals that are collected in a take-back event or program, including those that are collected by an authorized collector (as defined by the Drug Enforcement Administration) registered with the Drug Enforcement Administration that commingles the household waste pharmaceuticals with controlled substances from an ultimate user (as defined by the Drug Enforcement Administration).

(b) Conditions for exemption. The hazardous waste pharmaceuticals must be:

1. Managed in compliance with the sewer prohibition of 335-14-7-.16(5); and

2. Collected, stored, transported, and disposed of in compliance with all applicable Drug Enforcement Administration regulations for controlled substances; and

3. Destroyed by a method that Drug Enforcement Administration has publicly deemed in writing to meet their non-retrievable standard of destruction or combusted at one of the following:

(i) A permitted large municipal waste combustor, subject to 40 CFR part 62 subpart FFF or applicable state plan for existing large municipal waste combustors, or 40 CFR part 60 subparts Eb for new large municipal waste combustors; or

(ii) A permitted small municipal waste combustor, subject to 40 CFR part 62 subpart JJJ or applicable state plan for existing small municipal waste combustors, or 40 CFR part 60 subparts AAAA for new small municipal waste combustors; or

(iii) A permitted hospital, medical and infectious waste incinerator, subject to 40 CFR part 62 subpart HHH or applicable state plan for existing hospital, medical and infectious waste incinerators, or 335-3-3-.04 for new hospital, medical and infectious waste incinerators.

(iv) A permitted commercial and industrial solid waste incinerator, subject to 40 CFR part 62 subpart III or applicable state plan for existing commercial and industrial solid waste incinerators, or 335-3-3-.05 for new commercial and industrial solid waste incinerators.

(v) A permitted hazardous waste combustor subject to 40 CFR part 63 subpart EEE.

(7) Residues of hazardous waste pharmaceuticals in empty containers.

(a) Stock, dispensing and unit-dose containers. A stock bottle, dispensing bottle, vial, or ampule (not to exceed 1 liter or 10,000 pills); or a unit-dose container (e.g., a unit-dose packet, cup, wrapper, blister pack, or delivery device) is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals have been removed from the stock bottle, dispensing bottle, vial, ampule, or the unit-dose container using the practices commonly employed to remove materials from that type of container.

(b) Syringes. A syringe is considered empty and the residues are not regulated as hazardous waste under this subpart provided the contents have been removed by fully depressing the plunger of the syringe. If a syringe is not empty, the syringe must be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under this subpart and any applicable federal, state, and local requirements for sharps containers and medical waste.

(c) Intravenous (IV) bags. An IV bag is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals in the IV bag have been fully administered to a patient. If an IV bag is not empty, the IV bag must be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under this subpart, unless the IV bag held non-acute hazardous waste pharmaceuticals and is empty as defined in 335-14-2-.01(7)(b)1.

(d) Other containers, including delivery devices. Hazardous waste pharmaceuticals remaining in all other types of unused, partially administered, or fully administered containers must be managed as non-creditable hazardous waste pharmaceuticals under this subpart, unless the container held non-acute hazardous waste pharmaceuticals and is empty as defined in 335-14-2-.01(7)(b)1. or 2. This includes, but is not limited to, residues in inhalers, aerosol cans, nebulizers, tubes of ointments, gels, or creams.

(8) Shipping non-creditable hazardous waste pharmaceuticals from a healthcare facility or evaluated hazardous waste pharmaceuticals from a reverse distributor.

(a) Shipping non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility must ship non-creditable hazardous waste pharmaceuticals and a reverse distributor must ship evaluated hazardous waste pharmaceuticals off-site to a designated facility (such as a permitted or interim status treatment, storage, or disposal facility) in compliance with:

1. The following pre-transport requirements, before transporting or offering for transport off-site:

(i) Packaging. Package the waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR parts 173, 178, and 180.

(ii) Labeling. Label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172 subpart E.

(iii) Marking.

(I) Mark each package of hazardous waste pharmaceuticals in accordance with the applicable Department of Transportation (DOT) regulations on hazardous materials under 49 CFR part 172 subpart D;

(II) Mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Healthcare Facility's or Reverse distributor's Name and Address _____.

Healthcare Facility's or Reverse distributor's EPA Identification Number_____.

Manifest Tracking Number _____.

(III) Lab packs that will be incinerated in compliance with 335-14-9-.04(3) are not required to be marked with EPA Hazardous Waste Number(s), except D004, D005, D006, D007, D008, D010, and D011, where applicable. A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA Hazardous Waste Number(s).

(iv) Placarding. Placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172 subpart F.

2. The manifest requirements of 335-14-3-.02, except that:

(i) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals is not required to list all applicable hazardous waste numbers (i.e., hazardous waste codes) in Item 13 of EPA Form 8700-22 (Uniform Hazardous Waste Manifest).

(ii) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals must write the word "PHARMS" in Item 13 of EPA Form 8700-22 (Uniform Hazardous Waste Manifest).

(b) Exporting non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that exports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to 335-14-3-.09.

(c) Importing non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. Any person that imports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to 335-14-3-.09. A healthcare facility or reverse distributor may not accept imported non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals unless they have a permit or interim status that allows them to accept hazardous waste from off site.

(9) Shipping potentially creditable hazardous waste pharmaceuticals from a healthcare facility or a reverse distributor to a reverse distributor.

(a) Shipping potentially creditable hazardous waste pharmaceuticals. A healthcare facility or a reverse distributor who transports or offers for transport potentially creditable hazardous waste pharmaceuticals off-site to a reverse distributor must comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for any potentially creditable hazardous waste pharmaceutical that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of 335-14-3. Because a potentially creditable hazardous waste pharmaceutical does not require a manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Delivery confirmation. Upon receipt of each shipment of potentially creditable hazardous waste pharmaceuticals, the receiving reverse distributor must provide confirmation (paper or electronic) to the healthcare facility or reverse distributor that initiated the shipment that the shipment of potentially creditable hazardous waste pharmaceuticals has arrived at its destination and is under the custody and control of the reverse distributor.

(c) Procedures for when delivery confirmation is not received within 35 days. If a healthcare facility or reverse distributor initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor

and does not receive delivery confirmation within 35 calendar days from the date that the shipment of potentially creditable hazardous waste pharmaceuticals was sent, the healthcare facility or reverse distributor that initiated the shipment must contact the carrier and the intended recipient (i.e., the reverse distributor) promptly to report that the delivery confirmation was not received and to determine the status of the potentially creditable hazardous waste pharmaceuticals.

(d) Exporting potentially creditable hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that sends potentially creditable hazardous waste pharmaceuticals to a foreign destination must comply with the applicable sections of 335-14-3-.09, except the manifesting requirement of 335-14-3-.09(4), in addition to 335-14-7-.16(9)(a) through (c).

(e) Importing potentially creditable hazardous waste pharmaceuticals. Any person that imports potentially creditable hazardous waste pharmaceuticals into Alabama from outside the United States is subject to 335-14-7-.16(9)(a) through (c) in lieu of 335-14-3-.09. Immediately after the potentially creditable hazardous waste pharmaceuticals enter Alabama from outside the United States, they are subject to all applicable requirements of 335-14-7-.16.

(10) Standards for the management of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals at reverse distributors. A reverse distributor may accept potentially creditable hazardous waste pharmaceuticals from off site and accumulate potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals on site without a hazardous waste permit or without having interim status, provided that it complies with the following conditions:

(a) Standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

1. Notification. A reverse distributor must notify the Department, using ADEM Form 8700-12 (Notification of Regulated Waste Activity), that it is a reverse distributor operating under 335-14-7-.16.

(i) A reverse distributor that already has an EPA identification number must notify the Department, using ADEM Form 8700-12, that it is a reverse distributor, as defined in 335-14-1-.02(1), within 60 days of the effective date of 335-14-7-.16, or within 60 days of becoming subject to 335-14-7-.16.

(ii) A reverse distributor that does not have an EPA identification number must obtain one by notifying the Department, using ADEM Form 8700-12, that it is a reverse distributor, as defined in 335-14-1-.02(1), within 60 days of the effective date of 335-14-7-.16, or within 60 days of becoming subject to 335-14-7-.16.

2. Inventory by the reverse distributor. A reverse distributor must maintain a current inventory of all the potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals that are accumulated on site.

(i) A reverse distributor must inventory each potentially creditable hazardous waste pharmaceutical within 30 calendar days of each waste arriving at the reverse distributor.

(ii) The inventory must include the identity (e.g., name or national drug code) and quantity of each potentially creditable hazardous waste pharmaceutical and evaluated hazardous waste pharmaceutical.

(iii) If the reverse distributor already meets the inventory requirements of this paragraph because of other regulatory requirements, such as Alabama Board of Pharmacy rules, the facility is not required to provide a separate inventory pursuant to this rule.

3. Evaluation by a reverse distributor that is not a manufacturer. A reverse distributor that is not a pharmaceutical manufacturer must evaluate a potentially creditable hazardous waste pharmaceutical within 30 calendar days of the waste arriving at the reverse distributor to establish whether it is destined for another reverse distributor for further evaluation or verification of manufacturer credit or for a permitted or interim status treatment, storage, or disposal facility.

(i) A potentially creditable hazardous waste pharmaceutical that is destined for another reverse distributor is still considered a potentially creditable hazardous waste pharmaceutical and must be managed in accordance with 335-14-7-.16(10)(b).

(ii) A potentially creditable hazardous waste pharmaceutical that is destined for a permitted or interim status treatment, storage or disposal facility is considered an "evaluated hazardous waste pharmaceutical" and must be managed in accordance with 335-14-7-.16(10)(c).

4. Evaluation by a reverse distributor that is a manufacturer. A reverse distributor that is a pharmaceutical manufacturer must evaluate a potentially creditable hazardous waste pharmaceutical to verify manufacturer credit within 30 calendar days of the waste arriving at the facility and following the evaluation must manage the evaluated hazardous waste pharmaceuticals in accordance with 335-14-7-.16(10)(c).

5. Maximum accumulation time for hazardous waste pharmaceuticals at a reverse distributor.

(i) A reverse distributor may accumulate potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals on site for 180 calendar days or less. The 180 days start after the potentially creditable hazardous waste pharmaceutical has been evaluated

and applies to all hazardous waste pharmaceuticals accumulated on site, regardless of whether they are destined for another reverse distributor (i.e., potentially creditable hazardous waste pharmaceuticals) or a permitted or interim status treatment, storage, or disposal facility (i.e., evaluated hazardous waste pharmaceuticals).

(ii) Aging pharmaceuticals. Unexpired pharmaceuticals that are otherwise creditable but are awaiting their expiration date (i.e., aging in a holding morgue) can be accumulated for up to 180 days after the expiration date, provided that the unexpired pharmaceuticals are managed in accordance with paragraph (a) of this section and the container labeling and management standards in 335-14-7-.16(10)(c)4.(i) through (vi).

6. Security at the reverse distributor facility. A reverse distributor must prevent unknowing entry and minimize the possibility for the unauthorized entry into the portion of the facility where potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals are kept.

(i) Examples of methods that may be used to prevent unknowing entry and minimize the possibility for unauthorized entry include, but are not limited to:

(I) A 24-hour continuous monitoring surveillance system;

(II) An artificial barrier such as a fence; or

(III) A means to control entry, such as keycard access.

(ii) If the reverse distributor already meets the security requirements of this paragraph because of other regulatory requirements, such as Drug Enforcement Administration or Alabama Board of Pharmacy rules, the facility is not required to provide separate security measures pursuant to this section.

7. Contingency plan and emergency procedures at a reverse distributor. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site must prepare a contingency plan and comply with the other requirements of 335-14-3-.14.

8. Closure of a reverse distributor. When closing an area where a reverse distributor accumulates potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals, the reverse distributor must comply with 335-14-3-.01(7)(a)8.(ii) and (iii).

9. Reporting by a reverse distributor.

(i) Unauthorized waste report. A reverse distributor must submit an unauthorized waste report if the reverse distributor receives waste from off site that it is not authorized to receive (e.g., non-pharmaceutical

hazardous waste, regulated medical waste). The reverse distributor must prepare and submit an unauthorized waste report to the Department within 45 calendar days after the unauthorized waste arrives at the reverse distributor and must send a copy of the unauthorized waste report to the healthcare facility (or other entity) that sent the unauthorized waste. The reverse distributor must manage the unauthorized waste in accordance with all applicable regulations. The unauthorized waste report must be signed by the owner or operator of the reverse distributor, or its authorized representative, and contain the following information:

(I) The EPA identification number, name and address of the reverse distributor;

(II) The date the reverse distributor received the unauthorized waste;

(III) The EPA identification number, name, and address of the healthcare facility that shipped the unauthorized waste, if available;

(IV) A description and the quantity of each unauthorized waste the reverse distributor received;

(V) The method of treatment, storage, or disposal for each unauthorized waste; and

(VI) A brief explanation of why the waste was unauthorized, if known.

(ii) Additional reports. The Department may require reverse distributors to furnish additional reports concerning the quantities and disposition of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

10. Recordkeeping by reverse distributors. A reverse distributor must keep the following records (paper or electronic) readily available upon request by an inspector. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Department.

(i) A copy of its notification on file for as long as the facility is subject to this subpart;

(ii) A copy of the delivery confirmation and the shipping papers for each shipment of potentially creditable hazardous waste pharmaceuticals that it receives, and a copy of each unauthorized waste report, for at least three years from the date the shipment arrives at the reverse distributor;

(iii) A copy of its current inventory for as long as the facility is subject to this subpart.

(b) Additional standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor. A reverse distributor that does not have a permit or interim status must comply with the following conditions, in addition to the requirements in 335-14-7-.16(10)(a), for the management of potentially creditable hazardous waste pharmaceuticals that are destined for another reverse distributor for further evaluation or verification of manufacturer credit:

1. A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from a healthcare facility must send those potentially creditable hazardous waste pharmaceuticals to another reverse distributor within 180 days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow 335-14-7-.16(10)(c) for evaluated hazardous waste pharmaceuticals.

2. A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from another reverse distributor must send those potentially creditable hazardous waste pharmaceuticals to a reverse distributor that is a pharmaceutical manufacturer within 180 days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow 335-14-7-.16(10)(c) for evaluated hazardous waste pharmaceuticals.

3. A reverse distributor must ship potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor in accordance with 335-14-7-.16(9).

4. Recordkeeping by reverse distributors. A reverse distributor must keep the following records (paper or electronic) readily available upon request by an inspector for each shipment of potentially creditable hazardous waste pharmaceuticals that it initiates to another reverse distributor, for at least three years from the date of shipment. The periods of retention referred to in this rule are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Department.

(i) The confirmation of delivery; and

(ii) The DOT shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.

(c) Additional standards for reverse distributors managing evaluated hazardous waste pharmaceuticals. A reverse distributor that does not have a permit or interim status must comply with the following conditions, in addition to the requirements of 335-14-7-.16(10)(a), for the management of evaluated hazardous waste pharmaceuticals:

1. Accumulation area at the reverse distributor. A reverse distributor must designate an on-site accumulation area where it will accumulate evaluated hazardous waste pharmaceuticals.

2. Inspections of on-site accumulation area. A reverse distributor must inspect its on-site accumulation area at least once every seven days, looking at containers for leaks and for deterioration caused by corrosion or other factors, as well as for signs of diversion.

3. Personnel training at a reverse distributor. Personnel at a reverse distributor that handle evaluated hazardous waste pharmaceuticals are subject to the training requirements of 335-14-3-.01(7)(a)7.

4. Labeling and management of containers at on-site accumulation areas. A reverse distributor accumulating evaluated hazardous waste pharmaceuticals in containers in an on-site accumulation area must:

(i) Label the containers with the words, "hazardous waste pharmaceuticals";

(ii) Ensure the containers are in good condition and managed to prevent leaks;

(iii) Use containers that are made of or lined with materials which will not react with, and are otherwise compatible with, the evaluated hazardous waste pharmaceuticals, so that the ability of the container to contain the waste is not impaired;

(iv) Keep containers closed, if holding liquid or gel evaluated hazardous waste pharmaceuticals. If the liquid or gel evaluated hazardous waste pharmaceuticals are in their original, intact, sealed packaging; or repackaged, intact, sealed packaging, they are considered to meet the closed container standard;

(v) Manage any container of ignitable or reactive evaluated hazardous waste pharmaceuticals, or any container of commingled incompatible evaluated hazardous waste pharmaceuticals so that the container does not have the potential to:

(I) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(II) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(III) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(IV) Damage the structural integrity of the container of hazardous waste pharmaceuticals; or

(V) Through other like means threaten human health or the environment; and

(vi) Accumulate evaluated hazardous waste pharmaceuticals that are prohibited from being combusted because of the dilution prohibition of 335-14-9-.01(3) (e.g., arsenic trioxide (P012)) in separate containers from other evaluated hazardous waste pharmaceuticals at the reverse distributor.

5. Hazardous waste numbers. Prior to shipping evaluated hazardous waste pharmaceuticals off site, all containers must be marked with the applicable hazardous waste numbers (i.e., hazardous waste codes). A nationally recognized electronic system, such as bar coding or radio frequency identification, may be used to identify the EPA Hazardous Waste Number(s).

6. Shipments. A reverse distributor must ship evaluated hazardous waste pharmaceuticals that are destined for a permitted or interim status treatment, storage or disposal facility in accordance with the applicable shipping standards in 335-14-7-.16(8)(a) or (b).

7. Procedures for a reverse distributor for managing rejected shipments. A reverse distributor that sends a shipment of evaluated hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy provisions of 335-14-5-.05(3) or 335-14-6-.05(3), may accumulate the returned evaluated hazardous waste pharmaceuticals on site for up to an additional 90 days in the on-site accumulation area provided the rejected or returned shipment is managed in accordance with 335-14-7-.16(10)(a) and (c). Upon receipt of the returned shipment, the reverse distributor must:

(i) Sign either:

(I) Item 18c of the original manifest, if the original manifest was used for the returned shipment; or

(II) Item 20 of the new manifest, if a new manifest was used for the returned shipment;

(ii) Provide the transporter a copy of the manifest;

(iii) Within 30 days of receipt of the rejected shipment of the evaluated hazardous waste pharmaceuticals, send a copy of the manifest to the designated facility that returned the shipment to the reverse distributor; and

(iv) Within 90 days of receipt of the rejected shipment, transport or offer for transport the returned shipment of evaluated hazardous waste pharmaceuticals in accordance with the applicable shipping standards of 335-14-7.16(8)(a) or (b).

8. Land disposal restrictions. Evaluated hazardous waste pharmaceuticals are subject to the land disposal restrictions of 335-14-9. A reverse distributor that accepts potentially creditable hazardous waste

pharmaceuticals from off-site must comply with the land disposal restrictions in accordance with 335-14-9-.01(7).

9. Reporting by a reverse distributor for evaluated hazardous waste pharmaceuticals.

(i) Biennial reporting by a reverse distributor. A reverse distributor that ships evaluated hazardous waste pharmaceuticals off-site must prepare and submit a single copy of a biennial report to the Department by March 1 of each even numbered year in accordance with 335-14-3-.04(2).

(ii) Exception reporting by a reverse distributor for a missing copy of the manifest.

(I) For shipments from a reverse distributor to a designated facility,

I. If a reverse distributor does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 35 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter, the reverse distributor must contact the transporter or the owner or operator of the designated facility to determine the status of the evaluated hazardous waste pharmaceuticals.

II. A reverse distributor must submit an exception report to the Department if it has not received a copy of the manifest with the signature of the owner or operator of the designated facility within 45 days of the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter. The exception report must include:

a. A legible copy of the manifest for which the reverse distributor does not have confirmation of delivery; and

b. A cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

(II) For shipments rejected by the designated facility and shipped to an alternate facility,

I. A reverse distributor that does not receive a copy of the manifest with the signature of the owner or operator of the alternate facility within 35 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter must contact the transporter or the owner or operator of the alternate facility to determine the status of the hazardous waste. The 35-day time frame begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

II. A reverse distributor must submit an Exception Report to the Department if it has not received a copy of the manifest with the signature of the owner or operator of the alternate facility within 45 days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter. The 45-day timeframe begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste pharmaceutical shipment from the designated facility to the alternate facility. The Exception Report must include:

a. A legible copy of the manifest for which the generator does not have confirmation of delivery; and

b. A cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

10. Recordkeeping by a reverse distributor for evaluated hazardous waste pharmaceuticals.

(i) A reverse distributor must keep a log (written or electronic) of the inspections of the on-site accumulation area, required 335-14-7-.16(10)(c)2. This log must be retained as a record for at least three years from the date of the inspection.

(ii) A reverse distributor must keep a copy of each manifest signed in accordance with 335-14-3-.02(4)(a) for three years or until it receives a signed copy from the designated facility that received the evaluated hazardous waste pharmaceutical. This signed copy must be retained as a record for at least three years from the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter.

(iii) A reverse distributor must keep a copy of each biennial report for at least three years from the due date of the report.

(iv) A reverse distributor must keep a copy of each exception report for at least three years from the submission of the report.

(v) A reverse distributor must keep records to document personnel training, in accordance with 335-14-3-.01(7)(a)7.(iv).

(vi) All records must be readily available upon request by an inspector. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the Department.

(d) When a reverse distributor must have a permit. A reverse distributor is an operator of a hazardous waste treatment, storage, or disposal facility and is subject to the requirements of 335-14-5, 335-14-6, and the permit requirements of 335-14-8, if the reverse distributor:

1. Does not meet the conditions of this section;

2. Accepts manifested hazardous waste from off site; or

3. Treats or disposes of hazardous waste pharmaceuticals on site.

Author: Sonja B. Favors; Brent A. Watson
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11, 22-30-12, 22-30-14, 22-30-15, 22-30-16, 22-30-19, 22-30-20.
History: Filed: February 28, 2020; Effective: April 13, 2020.

335-14-7-APPENDIX I Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals.

40 CFR, Part 266 Appendix I, of the Environmental Protection Agency Regulations (as published by EPA on February 21, 1991 and amended on July 17, 1991) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix I which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX II Tier I Feed Rate Screening Limits for Total Chlorine and Chloride.

40 CFR, Part 266 Appendix II, of the Environmental Protection Agency Regulations (as published by EPA on July 17, 1991) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix II which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX III Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

40 CFR, Part 266 Appendix III, of the Environmental Protection Agency Regulations (as published by EPA on July 17, 1991 and amended on July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix III which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX IV Reference Air Concentrations.

40 CFR, Part 266 Appendix IV, of the Environmental Protection Agency Regulations (as published by EPA on February 21, 1991 and amended on July 17, 1991 and July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix IV which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX V Risk Specific Doses.

40 CFR Part 266 Appendix V, of the Environmental Protection Agency Regulations (as published by EPA on February 21, 1991 and amended on July 17, 1991 and July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix V which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX VI Stack Plume Rise.

40 CFR Part 266 Appendix VI, of the Environmental Protection Agency Regulations (as published by EPA on February 21, 1991 and amended on July 17, 1991 and July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference as set forth in 40 CFR, Part 266.

Any provisions of 40 CFR Part 266 Appendix VI which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.

Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX VII Health-Based Limits for Exclusion of Waste-Derived Residues.

40 CFR Part 266 Appendix VII, of the Environmental Protection Agency Regulations (as published by EPA on February 21, 1991 and amended on July 17, 1991 and November 9, 1993) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix VII which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: January 5, 1995; March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX VIII Potential PICs for Determination of Exclusion of Waste-Derived Residues.

40 CFR Part 266 Appendix VIII, of the Environmental Protection Agency Regulations (as published by EPA on September 30, 1999 and amended on November 19, 1999 and July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix VIII which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX IX **Methods Manual for Compliance with the BIF Regulations.**

40 CFR Part 266 Appendix IX, of the Environmental Protection Agency Regulations (as published by EPA on July 17, 1991; and amended on August 27, 1991; August 25, 1992; September 30, 1992; June 13, 1997; June 14, 2005; July 14, 2006; and June 25, 2009) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix IX which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: January 5, 1995; March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006, March 31, 2017.

335-14-7-APPENDIX X **[RESERVED]**

335-14-7-APPENDIX XI **Lead-Bearing Materials that May be Processed in Exempt Lead Smelters.**

40 CFR Part 266 Appendix XI, of the Environmental Protection Agency Regulations (as published by EPA on August 27, 1991) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix XI which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX XII Nickel or Chromium-Bearing Materials that May be Processed in Exempt Nickel-Chromium Recovery Furnaces.

40 CFR Part 266 Appendix XII, of the Environmental Protection Agency Regulations (as published by EPA on August 27, 1991) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix XII which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-7-APPENDIX XIII Mercury-Bearing Wastes that May be Processed in Exempt Mercury Recovery Units.

40 CFR Part 266 Appendix XIII, of the Environmental Protection Agency Regulations (as published by EPA on September 19, 1994 and amended on July 14, 2006) governing hazardous waste burned in boilers and industrial furnaces, is incorporated herein by reference.

Any provisions of 40 CFR Part 266 Appendix XIII which are inconsistent with other provisions of the ADEM Administrative Code are not incorporated herein by reference.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: C. Lynn Garthright; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: April 28, 1995.
Amended: March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; March 31, 2017.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-8
PERMIT PROGRAM

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335-14-8-.01 General Information.

(1) Purpose and scope.

(a) Coverage.

1. These permit regulations establish the procedures for obtaining a permit to transport, store, treat, or dispose of hazardous waste in compliance with the AHWMMA. The technical standards used to determine the requirements of any permit are set out in Chapters 335-14-3, 335-14-4, 335-14-5 and 335-14-7. These permit regulations also apply to the denial of a permit for the active life of an AHWMMA hazardous waste management facility or unit under 335-14-8-.02(20).

2. Unless they qualify for interim status under rule 335-14-8-.07, all owners and operators of hazardous waste treatment, storage, and disposal

facilities and all transporters of hazardous waste must apply for and receive a permit from the Department before the construction of any facility or the transportation of any hazardous waste.

(b) [Reserved]

(c) Scope of the AHWMMA permit requirement. AHWMMA requires a permit for the "treatment", "storage", and "disposal" of any "hazardous waste" as identified or listed in Chapter 335-14-2. The terms "treatment", "storage", "disposal", and "hazardous waste" are defined in rule 335-14-1-.02. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure (according to 335-14-6-.07(6)) after January 26, 1983, must have post-closure permits, unless they demonstrate closure by removal as provided under 335-14-8-.01(1)(c)5. and 6., or obtain an enforceable post-closure document, as provided under 335-14-8-.01(1)(c)7. If a post-closure permit is required, the permit must address applicable Chapter 335-14-5 requirements (Groundwater Monitoring, Unsaturated Zone Monitoring, Corrective Action, and Post-Closure Care). The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under 335-14-8-.01(1).

1. [Reserved]

2. Specific exclusions. The following persons are among those who are not required to obtain an AHWMMA permit:

(i) Generators who accumulate hazardous waste on-site in compliance with all of the conditions for exemption provided in 335-14-3-.01(4) through (7);

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in 335-14-3-.07(1);

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulation under 335-14-8 by 335-14-2-.01(4) or 335-14-3-.01(4) (very small quantity generator exemption);

(iv) Owners or operators of totally enclosed treatment facilities as defined in rule 335-14-1-.02;

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in rule 335-14-1-.02 which manage only wastes and/or wastewaters generated on-site, or which are POTWs or privatized municipal wastewater treatment facilities;

[**Note:** Commercial treatment, or treatment except by the generator, of wastes and/or wastewaters in elementary neutralization or wastewater treatment units are not exempt from the requirement to obtain an AHWMMA permit.]

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of 335-14-3-.03(1) at a transfer facility for a period of ten days or less are not required to obtain a storage facility permit but must have a transporter permit;

(vii) Persons adding absorbent material to waste in a container and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container, and 335-14-6-.02(8)(b) and 335-14-6-.09(2) and (3) are complied with;

(viii) Generators treating on-site generated hazardous wastes by evaporation in tanks or containers provided that:

(I) The generator complies with the applicable requirements of Chapter 335-14-3,

(II) Such treatment does not result in the emission or discharge of hazardous wastes or hazardous constituents into the environment in excess of any standard(s) promulgated by the Department or the Environmental Protection Agency,

(III) With respect to treatment, the generator complies with the applicable requirements of rules 335-14-6-.02(5), 335-14-6-.02(6), 335-14-6-.02(7), 335-14-6-.02(8), 335-14-6-.03, 335-14-6-.04, 335-14-6-.07(2), 335-14-6-.07(5), 335-14-6-.09 and 335-14-6-.10,

(IV) Such treatment minimizes the amount of hazardous wastes which are subsequently generated, treated, and/or disposed, and

(V) The generator provides the Department with written notice of intent to treat such hazardous wastes on or before the effective date of 335-14-8-.01 or at least 60 days prior to the initiation of waste treatment, which ever date occurs last. This notice must provide documentation of compliance with the requirements of 335-14-8-.01(1)(c)2.(viii)(II), (III), and (IV), and must be maintained for the life of the facility and be available for inspection;

(ix) Universal waste handlers and universal waste transporters [as defined in 335-14-1-.02] managing the wastes listed below. These handlers are subject to regulation under Chapter 335-14-11:

(I) Batteries as described in 335-14-11-.01(2),

(II) Pesticides as described in 335-14-11-.01(3),

(III) Mercury-containing equipment as described in 335-14-11-.01(4),

(IV) Lamps as described in 335-14-11-.01(5), and

(V) Aerosol cans as described in 335-14-11-.01(6).

(x) Generators treating on-site generated hazardous wastes in tanks or containers by physical or mechanical processes (e.g., compacting rags, crushing fluorescent lamps) solely for the purpose of reducing the bulk volume of the waste which must be subsequently managed as a hazardous waste provided that:

(I) The generator complies with the applicable requirements of Chapter 335-14-3;

(II) The treatment process does not result in a change in the chemical composition of the waste(s) treated;

(III) No mixing of different waste streams occurs;

(IV) No free liquids are included in the waste(s) to be treated or generated by the treatment process;

(V) The potential for ignition and/or reaction of the waste during treatment and/or as the result of treatment does not exist;

(VI) The treatment reduces the volume of hazardous waste which must be subsequently managed;

(VII) Such treatment does not result in the emission or discharge of hazardous wastes or hazardous constituents into the environment in excess of any standard(s) promulgated by the Department, the Environmental Protection Agency, or the Occupational Safety and Health Administration (OSHA). Generators treating on-site generated hazardous wastes in fluorescent bulb/lamp units must maintain the following documents on-site:

I. A copy of the manufacturer's equipment operations manual and specifications;

II. A copy of all applicable equipment operation and maintenance records;

III. A copy of all applicable OSHA compliance demonstrations and records: and

IV. Documents/records demonstrating emissions compliance.

(VIII) With respect to treatment, the generator complies with the applicable requirements of rules 335-14-6-.02(5), 335-14-6-.02(6), 335-14-6-.02(7), 335-14-6-.02(8), 335-14-6-.03, 335-14-6-.04, 335-14-6-.07(2), 335-14-6-.07(5), 335-14-6-.09, 335-14-6-.10; and

(IX) The generator provides the Department with written notice of intent to treat such hazardous wastes on or before the effective date of 335-14-8-.01 or at least 60 days prior to the initiation of waste treatment, whichever date occurs last. This notice must provide documentation of compliance with the requirements of 335-14-8-.01(1)(c)2.(x)(II), (III), (IV), (V), (VI), (VII), and (VIII), and must be maintained for the life of the facility and be available for inspection.

(xi) Persons deploying intact airbag modules and seatbelt pretensioners provided that:

(I) Prior to treatment, the items are managed in accordance with all applicable requirements of Division 335-14; and

(II) The items are deployed using a method approved by the automotive industry or the manufacturer.

(xii) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined 335-14-1-.02(1). Reverse distributors are subject to regulation under 335-14-7-.16 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

3. Further exclusions.

(i) A person is not required to obtain a permit under 335-14-8 for treatment or containment activities taken during immediate response to any of the following situations:

(I) A discharge of a hazardous waste;

(II) An imminent and substantial threat of a discharge of hazardous waste;

(III) A discharge of a material which, when discharged, becomes a hazardous waste; or

(IV) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 335-14-1-.02.

(ii) Transporters are not required to obtain a permit in accordance with 335-14-8 in order to provide emergency transportation from cleanup of a discharge under 335-14-8-.01(1)(c)3(i).

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(iv) Any person who continues or initiates hazardous waste treatment, containment, or transportation activities after the immediate response is over is subject to all applicable requirements of 335-14-8 for those activities.

(v) A person who receives hazardous waste from off-site for the purpose of reclamation/recycling in a unit or process which is exempted from regulation pursuant to 335-14-2-.01(6) is not required to obtain a permit under 335-14-8

for storage of the waste prior to introduction into the exempt reclamation/recycling process provided that:

(I) The hazardous waste is introduced into the exempt process within three days of receipt at the facility; and

(II) The hazardous waste is managed in containers, tanks, or containment buildings and the owner/operator complies with all applicable requirements of 335-14-6-.02, 335-14-6-.03, 335-14-6-.04, 335-14-6-.05, 335-14-6-.07(2), 335-14-6-.07(5), 335-14-6-.09, 335-14-6-.10, 335-14-6-.27, 335-14-6-.28, 335-14-6-.29, and 335-14-6-.30.

4. Permits for less than an entire facility. The Department may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The Department may issue or deny a permit for a particular unit(s) at a facility without affecting the interim status permit(s) for other units at the facility.

5. Closure by removal. Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Chapter 335-14-6 standards must obtain a post-closure permit unless they can demonstrate to the Department that the closure met the standards for closure by removal or decontamination in 335-14-5-.11(9), 335-14-5-.13(11)(e), or 335-14-5-.12(9), respectively. The demonstration may be made in the following ways:

(i) If the owner/operator has submitted a Part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that Chapter 335-14-5 closure by removal standards were met. If the Department believes that Chapter 335-14-5 standards were met, the Department will notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in 335-14-8-.01(1)(c)6.

(ii) If the owner/operator has not submitted a Part B application for a post-closure permit, the owner/operator may petition the Department for a determination that a post-closure permit is not required because the closure met the applicable Chapter 335-14-5 closure standards.

(I) The petition must include data demonstrating that closure by removal or decontamination standards were met or exceeded under the applicable Chapter 335-14-5 closure-by-removal standard.

(II) The Department shall approve or deny the petition according to the procedures outlined in 335-14-8-.01(1)(c)6.

6. Procedures for closure equivalency determination.

(i) If a facility owner/operator seeks an equivalency demonstration under 335-14-8-.01(1)(c)5., the Department will provide the public, through a

newspaper notice, the opportunity to submit written comments on the information submitted by the owner/operator within 30 days from the date of the notice. The Department will also, in response to a request or at its own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the Chapter 335-14-6 closure to a Chapter 335-14-5 closure. The Department will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.)

(ii) The Department will determine whether the Chapter 335-14-6 closure met Chapter 335-14-5 closure by removal or decontamination requirements within 90 days of its receipt. If the Department finds that the closure did not meet the applicable Chapter 335-14-5 standards, it will provide the owner/operator with a written statement of the reasons why the closure failed to meet Chapter 335-14-5 standards. The owner/operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Department will review any additional information submitted and make a final determination within 60 days.

(iii) If the Department determines that the facility did not close in accordance with Chapter 335-14-5 closure by removal standards, the facility is subject to post-closure permitting requirements.

7. Enforceable documents for post-closure care. At the Department's discretion, an owner or operator may obtain an enforceable document for post-closure care imposing the requirements of 335-14-6-.07(12). "Enforceable document" means an order, a plan, or other document issued, or approved, by EPA or the Department under an authority that meets the requirements of 40 CFR 271.16(e) including, but not limited to, a corrective action order issued by EPA or the Department under section 3008(h) of RCRA, a CERCLA remedial action, or a closure or post-closure plan.

(2) [Reserved]

(3) Considerations under federal law. The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed:

(a) The Wild and Scenic Rivers Act, 16 U.S.C. 1273 et seq.

(b) The National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq.

(c) The Endangered Species Act, 16 U.S.C. 1531 et seq.

(d) The Coastal Zone Management Act, 16 U.S.C. 661 et seq.

(4) Effect of permit.

(a) 1. Compliance with an AHWMMA permit during its term constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA except for those requirements not included in the permit which:

(i) Become effective by statute;

(ii) Are promulgated under Chapter 335-14-9 restricting the placement of hazardous wastes in or on the land;

(iii) Are promulgated under Chapter 335-14-5 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and will be implemented through the procedures of rule 335-14-8-.04; or

(iv) Are promulgated under rules 335-14-6-.27 or 335-14-6-.28 limiting air emissions.

2. A permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in 335-14-8-.04(2) and 335-14-8-.04(4), or the permit may be modified up on the request of the permittee as set forth in 335-14-8-.04(2)(a)3.(ii).

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Federal, State of Alabama or local laws or regulations.

(5) Effect of non-compliance.

(a) Substantial non-compliance, as determined by the Department, of another facility within the State of Alabama owned or operated by the permittee requesting reissuance of a permit, will be grounds for denial of permit reissuance until such non-compliance is corrected.

(b) A determination may be made by the Department to deny a permit application if the applicant operates other permitted facilities within the State of Alabama which are in substantial non-compliance, as determined by the Department, until such non-compliance is corrected or if the Department determines that a permit that results in compliance with applicable hazardous waste standards could not be issued or, if issued, could not be complied with.

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335-14-8-.02 Permit Application - Treatment, Storage and Disposal Facilities.

(1) General application requirements.

(a) Permit application. Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the Department as described in 335-14-8-.02(1) and 335-14-8-.07(1) through (4). Persons currently authorized with interim status shall apply for permits when required by the Department. Procedures for applications, issuance and administration of emergency permits are found exclusively in 335-14-8-.06(1). Procedures for application, issuance and administration of research, development, and demonstration permits are found exclusively in 335-14-8-.06(4).

(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner must also sign the permit application.

(c) Completeness. The Department shall not issue a permit before receiving a complete application for a permit except for emergency permits. An application for a permit is complete when the Department receives an application form and any supplemental information which are completed to its satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in 335-14-8-.02(1)(j). The Department may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(d) Information requirements. All permit applicants shall provide the information set forth in 335-14-8-.02(4) and the applicable provisions in 335-14-8-.02(5) through (19).

(e) Existing HWM facilities and interim status qualifications.

1. Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under the AHWMMA that render the facility subject to the requirement to have an AHWMMA Permit must submit Part A of their permit application not later than:

(i) Six months after the date of publication of regulations which first require them to comply with the standards set forth in Chapters 335-14-5 or 335-14-6; or

(ii) Thirty days after the date they first become subject to the standards set forth in Chapters 335-14-5 or 335-14-6, whichever first occurs.

(iii) For generators generating greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and treats, stores, or disposes of these wastes on-site, by March 24, 1987.

2. At any time the owner and operator of an existing HWM facility may be required to submit Part B of their permit application. Any owner or operator will be allowed 180 days from the date of request to submit Part B of the permit application. Any owner or operator of an existing HWM facility may submit Part B of the permit application at any time.

3. Failure to submit a complete Part B permit application within 180 days after a request from the Department is grounds for termination of the facility's Interim Status.

(f) New HWM facilities.

1. Except as provided in 335-14-8-.02(1)(f)3., no person shall begin physical construction of a new HWM facility without having submitted Part A and Part B of the permit application and having received a finally effective AHWMMA permit.

2. An application for a permit for a new HWM facility may be filed any time after the promulgation of those standards in Chapter 335-14-5 applicable to such facility.

3. Notwithstanding 335-14-8-.02(1)(f)1., a person may construct a facility for the incineration of polychlorinated biphenyls pursuant to an approval issued by the EPA Regional Administrator under Section (6)(e) of the Toxic Substances Control Act and any person owning or operating such a facility may, at any time after construction or operation of such facility has begun, file an application for a AHWMMA permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under Subtitle C of RCRA.

(g) Updating permit applications.

1. If any owner or operator of a HWM facility has filed Part A of a permit application and has not yet filed Part B, the owner or operator shall file an amended Part A application:

(i) No later than the effective date of changes to Chapter 335-14-2 listing or identifying additional wastes as hazardous if the facility is treating, storing, or disposing of the wastes newly listed or identified; or

(ii) As necessary to comply with 335-14-8-.07(3) for changes during interim status.

2. The owner or operator of a facility who fails to comply with the updating requirements of 335-14-8-.02(1)(g)1. does not receive an Interim Status Permit as to the wastes not covered by duly filed Part A applications.

(h) Reapplications. Any HWM facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Department; but in no case shall the Department grant permission for the application to be submitted later than the expiration date of the existing permit.

(i) Recordkeeping. Applicants shall keep records of all data used to complete applications and any supplemental information submitted under 335-14-8-.02(1)(d) and 335-14-8-.02(4) through (12) for a period of at least 3 years from the date the application is signed.

(j) Exposure Information.

1. After August 8, 1985, any Part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under 335-14-8-.02(1)(j)1.(i); and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

2. By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part B application must submit the exposure information required in 335-14-8-.02(1)(j)1.

(k) The Department may require a permittee or an applicant to submit information in order to establish permit conditions under 335-14-8-.03(3)(b)2. and 335-14-8-.05(1)(d).

(2) Signatories to permit applications and reports.

(a) All permit applications shall be signed as follows:

1. For a corporation, the application shall be signed by a responsible corporate officer. For the purpose of 335-14-8-.02(2), a responsible corporate officer means:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy making or decision making functions for the corporation; or

(ii) The manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively; or

3. For a municipality, State of Alabama, Federal, or other public agency, the application shall be signed by either a principal executive officer or ranking elected official. For purposes of 335-14-8-.02(2), a principal executive officer of a Federal Agency includes:

(i) The chief executive officer of the agency, or

(ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrator of EPA).

(b) All reports required by permits and other information requested by the Department shall be signed by a person described in 335-14-8-.02(2)(a), or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in 335-14-8-.02(2)(a);

2. The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

3. The written authorization is submitted to the Department.

(c) If an authorization under 335-14-8-.02(2)(b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of 335-14-8-.02(2)(b) must be submitted to the Department prior to or together with any reports, information, or application to be signed by an authorized representative.

(d) 1. Any person signing a document under 335-14-8-.02(2)(a) or (b) must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. [Reserved]

(3) Confidentiality of information.

(a) An applicant may claim information submitted as confidential if the information is protectable under Code of Alabama 1975, § 22-30-18, as amended. The term "trade secret" as used in § 22-30-18 is defined in Code of Alabama 1975, § 22-30-3(12).

(b) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(4) Contents of Part A of the permit application. Part A of the permit application shall include the following information:

(a) The activities conducted by the applicant which require it to obtain a hazardous waste facility permit.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State of Alabama, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities:

1. A scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas;

2. Photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under Chapter 335-14-2 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any programs administered by the Department or any of the following programs:

1. Hazardous Waste Management program under RCRA.

2. UIC program under the SDWA.

3. NPDES program under the CWA.

4. Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

5. Nonattainment program under the Clean Air Act.

6. National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

7. Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

8. Dredge or fill permits under Section 404 of the CWA.

9. Other relevant environmental permits.

(l) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface

water bodies, and drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary.

(m) A brief description of the nature of the business.

(n) For hazardous debris, a description of the debris category(ies) and containment category(ies) to be treated, stored, or disposed of at the facility.

(5) Contents of Part B: General requirements.

(a) Part B of the permit application consists of the general information requirements of 335-14-8-.02(5), and the specific information requirements in 335-14-8-.02(5) through (19) applicable to the facility. The Part B information requirements presented in 335-14-8-.02(5) through (19) reflect the standards promulgated in 335-14-5. These information requirements are necessary in order for the Department to determine compliance with the 335-14-5 standards. If owners and operators of HWM facilities can demonstrate that the information prescribed in Part B cannot be provided to the extent required, the Department may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the Department and signed in accordance with requirements in 335-14-8-.02(2). As discussed in 335-14-1-.01(1)(e), certain technical data, such as design drawings and specifications, engineering studies, geological interpretations, geological cross-sections, geological profiles, and survey plats involve the practice of engineering, land surveying, and/or geology and must be certified by a qualified Professional Engineer, a professional land surveyor, and/or a licensed professional geologist, as applicable. For post-closure permits, only the information specified in 335-14-8-.02 (19) is required in Part B of the permit application.

(b) General information requirements. The following information is required for all HWM facilities, except as 335-14-5-.01(1) provides otherwise:

1. A general description of the facility.

2. Chemical and physical analyses of the hazardous waste and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Chapter 335-14-5.

3. A copy of the waste analysis plan required by 335-14-5-.02(4)(b) and, if applicable, 335-14-5-.02(4)(c).

4. A description of the security procedures and equipment required by 335-14-5-.02(5), or a justification demonstrating the reasons for requesting a waiver of this requirement.

5. A copy of the general inspection schedule required by 335-14-5-.02(6)(b). Include where applicable, as part of the inspection schedule, specific requirements in 335-14-5-.09(5), 335-14-5-.10(4)(i), 335-14-5-.10(6), 335-14-5-.11(7), 335-14-5-.12(5), 335-14-5-.13(4), 335-14-5-.14(4), 335-14-5-

.15(8), 335-14-5-.19(1) and -.19(2), 335-14-5-.23(4), 335-14-5-.24(3), 335-14-5-.27(4), 335-14-5-.28(3), 335-14-5-.28(4), 335-14-5-.28(9), 335-14-5-.29(5), 335-14-5-.29(6), 335-14-5-.29(7), 335-14-5-.29(9), 335-14-5-.30(2), and 335-14-7-.08(3) [40 CFR 266.102(e)(8)].

6. A justification of any request for a waiver(s) of the preparedness and prevention requirements of rule 335-14-5-.03.

7. A copy of the contingency plan required by rule 335-14-5-.04.

[**Note:** Include, where applicable, as part of the contingency plan, specific requirements in 335-14-5-.11(8), 335-14-5-.12(6), and 335-14-5-.10(11).]

8. A description of procedures, structures, or equipment used at the facility to:

(i) Prevent hazards in unloading operations (for example, ramps, special forklifts);

(ii) Prevent run-off from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages;

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

(vi) Prevent releases to atmosphere.

9. A description of precautions to prevent accidental ignition or reaction of ignitable, reactive or incompatible wastes as required to demonstrate compliance with 335-14-5-.02(8), including documentation demonstrating compliance with 335-14-5-.02(8)(c).

10. Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

11. Facility location information:

(i) The owner or operator of a new facility must identify the political jurisdiction (e.g., county, township, or election district) in which the facility is proposed to be located.

(ii) [Reserved]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of

the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(I) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(II) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(III) If applicable, and in lieu of 335-14-8-.02(5)(b)11.(iv)(I) and (b)11.(iv)(II), a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

I. Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

II. A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Chapters 335-14-5 through 335-14-8.

III. The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

IV. The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with 335-14-5-.02(9)(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

12. An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with 335-14-5-.02(7). A brief description of how training will be designed to meet actual job tasks in accordance with requirements in 335-14-5-.02(7)(a)3.

13. A copy of the closure plan and, where applicable, the post-closure plan required by 335-14-5-.07(3), 335-14-5-.07(9), and 335-14-5-.10(8). Include, where applicable, as part of the plans, specific requirements in 335-14-5-.09(9), 335-14-5-.10(8), 335-14-5-.11(9), 335-14-5-.12(9), 335-14-5-.13(11), 335-14-5-.14(11), 335-14-5-.15(12), 335-14-5-.19(1) and (2), 335-14-5-.23(6), 335-14-5-

.24(2), 335-14-5-.24(4), 335-14-5-.30(3), and 335-14-7-.08(3) [40 CFR 266.102(e)(11)].

14. For hazardous waste disposal units that have been closed, documentation that notices required under 335-14-5-.07(10) have been filed.

15. The most recent closure cost estimate for the facility prepared in accordance with 335-14-5-.08(3) and a copy of the documentation required to demonstrate financial assurance under 335-14-5-.08(4). For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

16. Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with 335-14-5-.08(5) plus a copy of the documentation required to demonstrate financial assurance under 335-14-5-.08(6). For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

17. Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of 335-14-5-.08(8). For a new facility, documentation showing the amount of insurance meeting the specification of 335-14-5-.08(8)(a) and, if applicable, 335-14-5-.08(8)(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in 335-14-5-.08(8)(c).

18. [Reserved]

19. A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date;

(ii) 100 year floodplain area;

(iii) Surface waters including intermittent streams;

(iv) Surrounding land uses (residential, commercial, agricultural, recreational);

(v) A wind rose (i.e., prevailing windspeed and direction);

(vi) Orientation of the map (north arrow);

(vii) Legal boundaries of the HWM facility site;

(viii) Access control (fences, gates);

(ix) injection and withdrawal wells both on-site and off-site;

(x) Buildings; treatment, storage or disposal operations; or other structure (recreation areas, run-off control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.);

(xi) Barriers for drainage or flood control; and

(xii) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas).

(xiii) Location of all SWMUs and AOCs.

20. Applicants may be required to submit such information as may be necessary to enable the Department to carry out its duties under other laws as required in 335-14-8-.01(3).

21. For land disposal facilities; if a case-by-case extension has been approved under 335-14-9-.01(5) or a petition has been approved under 335-14-9-.01(6), a copy of the notice of approval for the extension or petition is required.

22. A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under rule 335-14-8-.08(1)(a)3.

(c) Additional information requirements. The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in 335-14-5-.06(1)(b):

1. A summary of the groundwater monitoring data obtained during the interim status period under 335-14-6-.06(1) through (5) where applicable, or the previous permit period if the application is for permit renewal;

2. Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

3. On the topographic map required under 335-14-8-.02(5)(b)19., a delineation of the waste management area, the property boundary, the proposed

"point of compliance" as defined under 335-14-5-.06(6), the proposed location of groundwater monitoring wells as required under 335-14-5-.06(8), and, to the extent possible, the information required in 335-14-8-.02(5)(c)2.;

4. A description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under 335-14-8-.02(5)(b)19.;

(ii) Identifies the concentration of each Chapter 335-14-5-Appendix IX constituent throughout the plume or identifies the maximum concentrations of each Chapter 335-14-5-Appendix IX constituent in the plume;

5. Detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of 335-14-5-.06(8);

6. If the presence of hazardous constituents has not been detected in the groundwater at the time of permit application, the owner or operator must submit sufficient information, supporting data and analyses to establish a detection monitoring program which meets the requirements of 335-14-5-.06(9). This submission must address the following items specified under 335-14-5-.06(9):

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater;

(ii) A proposed groundwater monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating groundwater monitoring data;

7. If the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of 335-14-5-.06(10). Except as provided in 335-14-5-.06(9)(g)5., the owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of 335-14-5-.06(11), unless the owner or operator obtains written authorization in advance from the Department to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with 335-14-5-.06(10), the owner or operator must address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated groundwater, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with 335-14-5-.06(8) and (10);

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in 335-14-5-.06(5)(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed groundwater monitoring system, in accordance with the requirements of 335-14-5-.06(8); and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating groundwater monitoring data; and

8. If hazardous constituents have been measured in the groundwater which exceed the concentration limits established under 335-7-2-.03(1), 335-7-2-.04(1), or Table 1 of 335-14-5-.06(5), or if groundwater monitoring conducted at the time of permit application under 335-14-6-.06(1) through (5) at the waste boundary indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of 335-14-5-.06(11). However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Department that alternate concentration limits will protect human health and the environment after considering the criteria listed in 335-14-5-.06(5)(b). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of 335-14-5-.06(10) and 335-14-8-.02(5)(c)6. To demonstrate compliance with 335-14-5-.06(11), the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated groundwater, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the groundwater as set forth in 335-14-5-.06(5);

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

(v) The permit may contain a schedule for submittal of the information required in 335-14-8-.02(5)(c)8.(iii) and (iv) provided the owner or operator obtains written authorization from the Department prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units.

1. The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under 335-14-8-.02(5)(b)19.

(ii) Designation of type of unit.

(iii) General dimensions and structural description (supply any available drawings).

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

2. The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

3. The owner/operator must conduct and provide the results of sampling and analysis of groundwater, land surface, and subsurface strata, surface water, or air which may include the installation of wells, where the Department ascertains it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.

4. The owner or operator must provide documentation of compliance with the requirements of the Uniform Environmental Covenants Program in ADEM Admin. Code div. 335-5 for all solid waste management units and areas of concern (including regulated units) for which remediation does not achieve the standard of unrestricted use.

(6) Specific Part B information requirements for containers. Except as otherwise provided in 335-14-5-.09(1), owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with 335-14-5-.09(6). Show at least the following:

1. Basic design parameters, dimensions, and materials of construction;

2. How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

3. Capacity of the containment system relative to the number and volume of containers to be stored;

4. Provisions for preventing or managing run-on; and

5. How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with 335-14-5-.09(6)(c), including:

1. Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

2. A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with 335-14-5-.09(7) (location of buffer zone and containers holding ignitable or reactive wastes) and 335-14-5-.09(8)(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with 335-14-5-.09(8)(a) and (b) and 335-14-5-.02(8)(b) and (c).

(e) Information on air emission control equipment as required in 335-14-8-.02(18).

(7) Specific Part B information requirements for tank systems. Except as otherwise provided in 335-14-5-.10(1), owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

(a) A written assessment that is reviewed and certified by a qualified Professional Engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under 335-14-5-.10(2) and 335-14-5-.10(3);

(b) Dimensions and capacity of each tank;

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

(d) A diagram of piping, instrumentation, and process flow for each tank system;

(e) A description of materials and equipment used to provide external corrosion protection, as required under 335-14-5-.10(3)(a)3.(ii);

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with 335-14-5-.10(3)(b), (c), (d), and (e);

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of 335-14-5-.10(4)(a), (b), (c), (d), (e), and (f);

(h) For tank systems for which a variance from the requirements of 335-14-5-.10(4) is sought (as provided by 335-14-5-.10(4)(g)):

1. Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water during the life of the facility, or

2. A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under 335-14-5-.10(5)(b).

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of 335-14-5-.10(9) and 335-14-5-.10(10); and

(k) Information on air emission control equipment as required in 335-14-8-.02(18).

(8) <u>Specific Part B information requirements for surface impoundments</u>. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated, and maintained to meet the requirements of 335-14-5-.02(10), 335-14-5-.11(2), 335-14-5-.11(3), and 335-14-5-.11(4), addressing the following items;

1. The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by 335-14-5-.11(2)(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of

any hazardous constituents into the groundwater or surface water at any future time;

2. The double liner and leak (leachate) detection, collection, and removal system, if the surface impoundment must meet the requirements of 335-14-5-.11(2)(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by 335-14-5-.11(2)(d), (e), or (f), submit appropriate information;

3. If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

4. The construction quality assurance (CQA) plan if required under 335-14-5-.02(10);

5. Proposed action leakage rate, with rationale, if required under 335-14-5-.11(3), and response action plan, if required under 335-14-5-.11(4);

6. Prevention of overtopping; and

7. Structural integrity of dikes.

(c) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, will be inspected in order to meet the requirements of 335-14-5-.11(7)(a), (b), and (d). This information must be included in the inspection plan submitted under 335-14-8-.02(8)(b)5.;

(d) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under 335-14-5-.11(7)(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(e) A description of the procedures to be used for removing a surface impoundment from service, as required under 335-14-5-.11(8)(b) and (c). This information should be included in the contingency plan submitted under 335-14-8-.02(5)(b)7.;

(f) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under 335-14-5-.11(9)(a)1. For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how 335-14-5-.11(9)(a)2. and (9)(b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under 335-14-8-.02(5)(b)13.;

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how 335-14-5-.11(10) will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how 335-14-5-.11(11) will be complied with;

(i) A waste management plan for EPA Hazardous Waste Nos. F020, F021, F022, F023, F026 and F027 describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of 335-14-5-.11(12). This submission must address the following items as specified in 335-14-5-.11(12):

1. The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design, or monitoring techniques.

(j) Information on air emission control equipment as required in 335-14-8-.02(18).

(9) Specific Part B information requirements for waste piles. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to 335-14-5-.12(2) and rule 335-14-5-.06 as provided by 335-14-5-.12(1)(c) or 335-14-5-.06(1)(b)2., an explanation of how the standards of 335-14-5-.12(1)(c) will be complied with or detailed plans and an engineering report describing how the requirements of 335-14-5-.06(1)(b)2. will be met;

(c) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of 335-14-5-.02(10), 335-14-5-.12(2), 335-14-5-.12(3), and 335-14-5-.12(4), addressing the following items:

1. (i) The liner system (except for an existing portion of a waste pile), if the waste pile must meet the requirements of 335-14-5-.12(2)(a). If an exemption from the requirement for a liner is sought as provided by 335-14-5-.12(2)(b), submit detailed plans, and engineering and hydrogeological

reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time;

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the waste pile must meet the requirements of 335-14-5-.12(2)(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by 335-14-5-.12(2)(d), (e), or (f), submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under 335-14-5-.02(10);

(v) Proposed action leakage rate, with rationale, if required under 335-14-5-.12(3), and response action plan, if required under 335-14-5-.12(4);

2. Control of run-on;

3. Control of run-off;

4. Management of collection and holding units associated with run-on and run-off control systems; and

5. Control of wind dispersal of particulate matter, where applicable;

(d) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of 335-14-5-.12(5)(a), (b), and (c). This information must be included in the inspection plan submitted under 335-14-8-.02(5)(b)5.;

(e) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(f) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of 335-14-5-.12(7) will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how 335-14-5-.12(8) will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under 335-14-5-.12(9)(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering

report describing how 335-14-5-.14(11)(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under 335-14-8-.02(5)(b)13.; and

(i) A waste management plan for EPA Hazardous Waste Nos. F020, F021, F022, F023, F026 and F027 describing how a waste pile that is not enclosed (as defined in 335-14-5-.12(1)(c)) is or will be designed, constructed, operated and maintained to meet the requirements of 335-14-5-.12(10). This submission must address the following items as specified in 335-14-5-.12(10):

1. The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design or monitoring techniques.

(10) Specific Part B information requirements for incinerators. Except as 335-14-5-.15(1) and 335-14-8-.02(10)(e) provide otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of 335-14-8-.02(10)(a), (b), or (c).

(a) When seeking an exemption under 335-14-5-.15(1)(b) or (c) (Ignitable, corrosive, or reactive wastes only):

1. Documentation that the waste is listed as a hazardous waste in rule 335-14-2-.04, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or

2. Documentation that the waste is listed as a hazardous waste in rule 335-14-2-.04, solely because it is reactive (Hazard Code R) for characteristics other than those listed in 335-14-2-.03(4)(a)4. and (4)(a)5., and will not be burned when other hazardous wastes are present in the combustion zone; or

3. Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity or both, as determined by the tests for characteristics of hazardous waste under rule 335-14-2-.03; or

4. Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in 335-14-2-.03(4)(a)1., 2., 3., 6., 7., or 8., and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with 335-14-8-.06(2);

(c) In lieu of a trial burn, the applicant may submit the following information:

1. An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned;

(ii) Viscosity (if applicable), or description of physical form of the waste;

(iii) An identification of any hazardous organic constituents listed in 335-14-2-Appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in 335-14-2-Appendix VIII which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods; and

(v) A quantification of those hazardous constituents in the waste which may be designated as POHCs based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in 335-14-5-.15(4);

2. A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator;

(ii) Type of incinerator;

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber;

(iv) Description of auxiliary fuel system (type/feed);

(v) Capacity of prime mover;

(vi) Description of automatic waste feed cutoff system(s);

(vii) Stack gas monitoring and pollution control monitoring system;

(viii) Nozzle and burner design;

(ix) Construction materials; and

(x) Location and description of temperature, pressure, and flow indicating devices and control devices;

3. A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in 335-14-8-.02(10)(c)1. This analysis should specify the POHCs which the applicant has identified in the waste for which a permit is sought, and any differences from the POHCs in the waste for which burn data are provided;

4. The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available;

5. A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in 335-14-5-.15(4); and

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement);

6. The expected incinerator operation information to demonstrate compliance with 335-14-5-.15(4) and (6) including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas;

(ii) Waste feed rate;

(iii) Combustion zone temperature;

(iv) Indication of combustion gas velocity;

(v) Expected stack gas volume, flow rate, and temperature;

(vi) Computed residence time for waste in the combustion zone;

(vii) Expected hydrochloric acid removal efficiency;

(viii) Expected fugitive emissions and their control procedures; and

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

7. Such supplemental information as the Department finds necessary to achieve the purposes of 335-14-8-.02(10)(c);

8. Waste analysis data, including that submitted in 335-14-8-.02(10)(c)1., sufficient to allow the Department to specify as permit Principal Organic Hazardous Constituents (permit POHCs) those constituents for which destruction and removal efficiencies will be required.

(d) The Department may approve a permit application without a trial burn if it finds that:

1. The wastes are sufficiently similar; and

2. The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under 335-14-5-.15(6)) operating conditions that will ensure that the performance standards in 335-14-5-.15(4) will be met by the incinerator.

(e) When an owner or operator demonstrates compliance with the air emission standards and limitations in 335-3-11-.06(56) [i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance], the requirements of 335-14-8-.02 do not apply, except those provisions the Department determines are necessary to ensure compliance with 335-14-5-.15(6)(a) and (6)(c) if the owner or operator elects to comply with 335-14-8-.15(1)(a)1.(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Department may apply the provisions of 335-14-8-.02, on a case-by-case basis, for purposes of information collection in accordance with 335-14-8-.02(10)(k) and 335-14-8-.03(3)(b)2.

(11) Specific Part B information requirements for land treatment facilities. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under 335-14-5-.13(3). The description must include the following information:

1. The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

2. The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

3. Any specific laboratory or field test that will be conducted, including:

(i) The type of test (e.g., column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices;

(b) A description of a land treatment program, as required under 335-14-5-.13(2). This information must be submitted with the plans for the

treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

1. The wastes to be land treated;

2. Design measures and operating practices necessary to maximize treatment in accordance with 335-14-5-.13(4)(a) including:

(i) Waste application method and rate;

(ii) Measures to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

3. Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in 335-14-5-.13(9)(a);

4. A list of hazardous constituents reasonably expected to be in, or derived from the wastes to be land treated based on waste analysis performed pursuant to 335-14-5-.02(4);

5. The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of 335-14-5-.13(4). This submission must address the following items:

1. Control of run-on;

2. Collection and control of run-off;

3. Minimization of run-off of hazardous constituents from the treatment zone;

4. Management of collection and holding facilities associated with run-on and run-off control systems;

5. Periodic inspection of the unit. This information should be included in the inspection plan submitted under 335-14-8-.02(5)(b)5.;

6. Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under 335-14-5-.13(7)(a) will be conducted including:

1. Characteristics of the food-chain crop for which the demonstration will be made;

2. Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

3. Procedures for crop growth, sample collection, sample analysis, and data evaluation;

4. Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of 335-14-5-.13(7)(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under 335-14-5-.13(11)(a)8. and (c)2. This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under 335-14-8-.02(5)(b)13.;

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of 335-14-5-.13(12) will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how 335-14-5-.13(13) will be complied with; and

(i) A waste management plan for EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of 335-14-5-.13(14). This submission must address the following items as specified in 335-14-5-.13(14):

1. The volume, physical, and chemical characteristics of the wastes including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design or monitoring techniques.

(12) Specific Part B information requirements for landfills. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that dispose of hazardous waste in landfills must provide the following information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is designed and is or will be constructed, operated, and maintained to meet the requirements of 335-14-5-.02(10), 335-14-5-.14(2), 335-14-5-.14(3), and 335-14-5-.14(4), addressing the following items:

1. (i) The liner system (except for an existing portion of a landfill), if the landfill must meet the requirements of 335-14-5-.14(2)(a);

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the landfill must meet the requirements of 335-14-5-.14(2)(b);

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under 335-14-5-.02(10);

(v) Proposed action leakage rate, with rationale, if required under 335-14-5-.14(3), and response action plan, if required under 335-14-5-.14(5);

2. Control of run-on;

3. Control of run-off;

4. Management of collection and holding facilities associated with run-on and run-off control systems; and

5. Control of wind dispersal of particulate matter, where applicable;

(c) [Reserved]

(d) A description of how each landfill, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected

in order to meet the requirements of 335-14-5-.14 (4)(a), (b), and (c). This information must be included in the inspection plan submitted under 335-14-8-.02(5)(b)5.;

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with 335-14-5-.14(11)(a), and a description of how each landfill will be maintained and monitored after closure in accordance with 335-14-5-.14(11)(b). This information should be included in the closure and post-closure plans submitted under 335-14-8-.02(5)(b)13.;

(f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of 335-14-5-.14(13) will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials, will be landfilled, an explanation of how 335-14-5-.14(14) will be complied with;

(h) [Reserved]

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of 335-14-5-.14(16) or (17), as applicable, will be complied with; and

(j) A waste management plan for EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of 335-14-5-.14(18). This submission must address the following items as specified in 335-14-5-.14(18):

1. The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2. The attenuative properties of underlying and surrounding soils or other materials;

3. The mobilizing properties of other materials co-disposed with these wastes; and

4. The effectiveness of additional treatment, design or monitoring techniques.

(13) <u>Specific Part B information requirements for boilers and industrial furnaces burning hazardous waste.</u> When an owner or operator of a cement or lightweight aggregate kiln demonstrates compliance with the air emission standards and limitations of 335-3-11-.06(56) (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance), the requirements of 335-14-8-.02 do not apply, except those provisions the Department determines are necessary to ensure compliance with 335-14-7-.08 if the facility elects to comply with 335-14-8-.15(1)(a)1.(i) to minimize emissions of

toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Department may apply the provisions of 335-14-8-.02, on a case-by-case basis, for the purposes of information collection in accordance with 335-14-8-.02(1)(k) and 335-14-8-.03(3)(b)2.

(a) Trial burns

1. General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by 335-14-7-.08(5), standards to control particulate matter provided by 335-14-7-.08(6), standards to control metals emissions provided by 335-14-7-.08(7), or standards to control hydrogen chloride or chlorine gas emissions provided by 335-14-7-.08(8) must conduct a trial burn to demonstrate conformance with those standards and must submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with 335-14-8-.06(5).

(i) A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of 335-14-7-.08(5) through 335-14-7-.08(8) and 335-14-8-.02(13)(a)2. through (a)5.; and

(ii) The owner or operator may submit data in lieu of a trial burn, as prescribed in 335-14-8-.02(13)(a)6.

2. Waiver of trial burn for DRE.

(i) Boilers operated under special operating requirements. When seeking to be permitted under 335-14-7-.08(5)(a)4. and 335-14-7-.08(11) that automatically waive the DRE trial burn, the owner or operator of a boiler must submit documentation that the boiler operates under the special operating requirements provided by 335-14-7-.08(11).

(ii) Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by 335-14-7-.08(5)(a)5. and 335-14-7-.08(10)(a) that waive the DRE trial burn, the owner or operator must submit:

(I) Documentation that the device is operated in conformance with the requirements of 335-14-7-.08(10)(a)1.

(II) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in 335-14-2-Appendix VIII, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained. The analysis must rely on appropriate analytical techniques.

(III) Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in 335-14-8-.02(13)(a)2.(ii)(II) using procedures provided by 335-14-7-.08(10)(a)2.(ii).

(IV) Results of emissions dispersion modeling for emissions identified in 335-14-8-.02(13)(a)2.(ii)(III) using modeling procedures prescribed by 335-14-7-.08(7)(h). The Department will review the emission modeling conducted by the applicant to determine conformance with these procedures. The Department will either approve the modeling or determine that alternate or supplementary modeling is appropriate.

(V) Documentation that the maximum annual average ground level concentration of each constituent identified in 335-14-8-.02(13)(a)2.(ii)(II) quantified in conformance with 335-14-8-.02(13)(a)2.(ii)(IV) does not exceed the allowable ambient level established in 335-14-7-Appendices IV or V. The acceptable ambient concentration for emitted constituents for which a specific Reference Air Concentration has not been established in 335-14-7-Appendix IV or Risk-Specific Dose has not been established in 335-14-7-Appendix V is 0.1 micrograms per cubic meter, as noted in the footnote to 335-14-7-Appendix IV.

3. Waiver of trial burn for metals. When seeking to be permitted under the Tier I (or adjusted Tier I) metals feed rate screening limits provided by 335-14-7-.08(7)(b) and (e) that control metals emissions without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the concentration of each metal controlled by 335-14-7-.08(7)(b) or (e) in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

(iii) Documentation of how the applicant will ensure that the Tier I feed rate screening limits provided by 335-14-7-.08(7)(b) or (e) will not be exceeded during the averaging period provided by that paragraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by 335-14-7-.08(7)(b)3. through (b)5.;

(v) Documentation of compliance with the provisions of 335-14-7-.08(7)(b)6., if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by 335-14-7-.08(7)(b)7. for eligibility to comply with the screening limits; and

(vii) Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

4. Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of 335-14-7-.08(10)(b) which waives the particulate standard (and trial burn to demonstrate conformance with

the particulate standard), applicants must submit documentation supporting conformance with 335-14-8-.02(13)(a)2.(ii) and (a)3.

5. Waiver of trial burn for HCl and Cl_2. When seeking to be permitted under the Tier I (or adjusted Tier I) feed rate screening limits for total chloride and chlorine provided by 335-14-7-.08(8)(b)1. and (e) that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl_2) without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

(iii) Documentation of how the applicant will ensure that the Tier I (or adjusted Tier I) feed rate screening limits provided by 335-14-7-.08(8)(b)1. or (e) will not be exceeded during the averaging period provided by that subparagraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by 335-14-7-.08(8)(b)3.;

(v) Documentation of compliance with the provisions of 335-14-7-.08(8)(b)4., if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by 335-14-7-.08(8)(b)3. for eligibility to comply with the screening limits; and

(vii) Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

6. Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with 335-14-7-.08(5) through 335-14-7-.08(8) and 335-14-8-.06(5) by providing the information required by 335-14-8-.06(5) from previous compliance testing of the device in conformance with 335-14-7-.08(4), or from compliance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by 335-14-8-.06(5) must be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information must be provided. The Department shall approve a permit application without a trial burn if it finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify [under 335-14-7-.08(3)] operating conditions that will ensure conformance with 335-14-7-.08(3)(c). In addition, the following information shall be submitted:

(i) For a waiver from any trial burn:

(I) A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;

(II) The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and

(III) Such supplemental information as the Department finds necessary to achieve the purposes of 335-14-8-.02(13)(a).

(ii) For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in 335-14-7-.08(5)(a). This analysis should specify the constituents in 335-14-2-Appendix VIII, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(b) Alternative HC limit for industrial furnaces with organic matter in raw materials. Owners and operators of industrial furnaces requesting an alternative HC limit under 335-14-7-.08(5)(f) shall submit the following information at a minimum:

1. Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

2. Documentation of the proposed baseline flue gas HC (and CO) concentration, including data on HC (and CO) levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

3. Test burn protocol to confirm the baseline HC (and CO) level including information on the type and flow rate of all feed streams, point of introduction of all feed streams, total organic carbon content (or other appropriate measure of organic content) of all nonfuel feed streams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from nonfuel sources;

4. Trial burn plan to:

(i) Demonstrate that flue gas HC (and CO) concentrations when burning hazardous waste do not exceed the baseline HC (and CO) level; and

(ii) Identify the types and concentrations of organic compounds listed in 335-14-2-Appendix VIII that are emitted when burning hazardous waste in conformance with procedures prescribed by the Department;

5. Implementation plan to monitor overtime changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

6. Such other information as the Department finds necessary to achieve the purposes of 335-14-8-.02(13)(b).

(c) Alternative metals implementation approach. When seeking to be permitted under an alternative metals implementation approach under 335-14-7-.08(7)(f), the owner or operator must submit documentation specifying how the approach ensures compliance with the metals emissions standards of 335-14-7-.08(7)(c) or (d) and how the approach can be effectively implemented and monitored. The owner or operator shall provide any other information that the Department finds necessary to achieve the purposes of 335-14-8-.02(13)(c).

(d) Automatic waste feed cutoff system. Owners and operators shall submit information describing the automatic waste feed cutoff system, including any pre-alarm systems that may be used.

(e) Direct transfer. Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles [containers, as defined in 335-14-7-.08(12)] directly to the boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by 335-14-7-.08(12).

(f) Residues. Owners and operators that claim that their residues are excluded from regulations under the provisions of 335-14-7-.08(13) must submit information adequate to demonstrate conformance with those provisions.

(14) Specific Part B information requirements for miscellaneous units. Except as otherwise provided in 335-14-5-.24(1), owners and operators of facilities that treat, store or dispose of hazardous waste in miscellaneous units must provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

1. Physical characteristics, materials of construction and dimensions of the unit;

2. Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of 335-14-5-.24(2) and 335-14-5-.24(3); and

3. For disposal units, a detailed description of the plans to comply with the post-closure requirements of 335-14-5-.24(4).

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of 335-14-5-.24(2). If the applicant can demonstrate that he does not violate the environmental performance standards of 335-14-5-.24(2) and the Department agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Department to be necessary for evaluation of compliance of the unit with the environmental performance standards of 335-14-5-.24(2).

(15) Specific Part B information requirements for process vents. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that have process vents to which 335-14-5-.27 applies must provide the following additional information:

(a) For facilities that cannot install a closed-vent system and control device to comply with the provisions of 335-14-5-.27 on the effective date that the facility becomes subject to the provisions of Chapter 335-14-5 or 335-14-6-.27, an implementation schedule as specified in 335-14-5-.27(4).

(b) Documentation of compliance with the process vent standards in 335-14-5-.27(3), including:

1. Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

2. Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or concentration) that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

3. Information and data used to determine whether or not a process vent is subject to the requirements of 335-14-5-.27(3).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of 335-14-5-.27(3), and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 335-14-5-.27(6).

(d) Documentation of compliance with 335-14-5-.27(4), including:

1. A list of all information references and sources used in preparing the documentation.

2. Records including the dates of each compliance test required by 335-14-5-.27(4).

3. A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" [incorporated by reference in rule 335-14-1-.02(2)] or other engineering texts acceptable to the Department that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in 335-14-5-.27(6).

4. A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

5. A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of 335-14-5-.27(3) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

(16) Specific Part B information requirements for equipment. Except as otherwise provided in 335-14-5-.01(1), owners and operators of facilities that have equipment to which rule 335-14-5-.28 applies must provide the following additional information:

(a) For each piece of equipment to which rule 335-14-5-.28 applies:

1. Equipment identification number and hazardous waste management unit identification.

2. Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

3. Type of equipment (e.g., a pump or pipeline valve).

4. Percent by weight total organics in the hazardous waste stream at the equipment.

5. Hazardous waste state at the equipment (e.g., gas/vapor or liquid).

6. Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

(b) For facilities that cannot install a closed-vent system and control device to comply with the provisions of rule 335-14-5-.28 on the effective date that the facility becomes subject to the provisions of rule 335-14-5-.28 or 335-14-6-.28, an implementation schedule as specified in 335-14-5-.27(4).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 335-14-5-.27(6).

(d) Documentation that demonstrates compliance with the equipment standards in 335-14-5-.28(3) to (10). This documentation shall contain the records required under 335-14-5-.28(15). The Department may request further documentation before deciding if compliance has been demonstrated.

(e) Documentation to demonstrate compliance with 335-14-5-.28(11) shall include the following information:

1. A list of all information references and sources used in preparing the documentation.

2. Records, including the dates of each compliance test required by 335-14-5-.27(4).

3. A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" [incorporated by reference in rule 335-14-1-.02(2)] or other engineering texts acceptable to the Department that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in 335-14-5-.27(6).

4. A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

5. A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

(17) <u>Special Part B information requirements for drip pads</u>. Except as otherwise provided by rule 335-14-5-.01, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to rule 335-14-5-.06, as provided by 335-14-5-.06(1), detailed plans and an engineering report describing how the requirements of 335-14-5-.06(1)(b)2. will be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated, and maintained to meet the requirements of 335-14-5-.23(4), including the as-built drawings and specifications. This submission must address the following items as specified in 335-14-5-.23(2):

1. The design characteristics of the drip pad;

2. The liner system;

3. The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

4. Practices designed to maintain drip pads;

5. The associated collection system;

6. Control of run-on to the drip pad;

7. Control of run-off from the drip pad;

8. The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

9. Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

10. Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

11. Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non- pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

12. Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

13. If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

14. A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of 335-14-5-.23(4). This information should be included in the inspection plan submitted under 335-14-8-.02(5)(b)5.

15. A certification signed by a qualified Professional Engineer, stating that the drip pad design meets the requirements of 335-14-5-.23(4)(a) through (f).

16. A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under 335-14-5-.23(6)(a). For any waste not to be removed from the drip pad upon closure, the owner or operator must submit detailed plans and an engineering report describing how 335-14-5-.14(11) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under 335-14-8-.02(5)(b)13.

(18) Specific Part B information requirements for air emission controls for tanks, surface impoundments, and containers.

(a) Except as otherwise provided in 335-14-5-.01(1), owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of 335-14-5-.29 shall provide the following additional information:

1. Documentation for each floating roof cover installed on a tank subject to 335-14-5-.29(5) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in 335-14-5-.29(5).

2. Identification of each container area subject to the requirements of 335-14-5-.29 and certification by the owner or operator that the requirements of 335-14-8-.02 are met.

3. Documentation for each enclosure used to control air pollutant emissions from tanks or containers in accordance with the requirements of 335-14-5-.29(5) or 335-14-5-.29(7) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, Appendix B.

4. Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of 335-14-5-.29(6) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in 335-14-5-.29(6).

5. Documentation for each closed-vent system and control device installed in accordance with the requirements of 335-14-5-.29(8) that includes design and performance information as specified in 335-14-8-.02(15)(c) and (d).

6. An emission monitoring plan for both Method 21 in 40 CFR part 60, Appendix A and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

7. When an owner or operator of a facility subject to 335-14-6-.29 cannot comply with 335-14-5-.29 by the date of permit issuance, he must comply with the schedule of implementation required under 335-14-6-.29(3).

(19) Specific Part B information requirements for post-closure permits. The following specific Part B information must be provided in addition to the general application requirements of 335-14-8-.02(1), (2), (3), and (4).

(a) For post-closure permits, the owner or operator is required to submit only the information specified in 335-14-8-.02(5)(b)1., 4., 5., 6., 11., 13., 14., 16., 18., and 19., 335-14-8-.02(5)(c), 335-14-8-.02(5)(d), and a list of the hazardous wastes placed in each unit, unless the Department determines that additional information from 335-14-8-.02(5), (7), (8), (9), (11), or (12) is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in 335-14-8-.01(1)(c)7.

(b) For alternative post-closure permits, the owner or operator is required to submit the information specified in 335-14-8-.02(19)(a). The information specified in 335-14-8-.02(1), (2), (3), (4), (5)(b)1., (5)(b)4., (5)(b)5., (5)(b)6., (5)(b)11.(i), (5)(b)11.(iii), (5)(b)14., (5)(b)16., (5)(b)19., and a list of the hazardous wastes placed in each unit must be submitted in the permit application, together with a proposed permit schedule for submittal of the remaining required information.

(20) Permit denial. The Department may, pursuant to the procedures in rule 335-14-8-.08, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

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Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12, 22-30-16 and 22-30-18.
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March 31, 2005; April 4, 2006; April 3, 2007; May 27, 2008; March 31, 2009; March 30, 2010; April 3, 2012.

335-14-8-.03 Permit Conditions - Treatment, Storage and Disposal Facilities.

(1) Conditions applicable to all permits. The following conditions apply to all permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

(a) Duty to comply. The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. [See 335-14-8-.06(1).] Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the AHWMMA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) Duty to reapply.

1. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

2. The permittee must submit an application for a new permit for both post-closure and solid waste management unit corrective action at least 180 calendar days before the expiration of this permit. The permittee must reapply in order to fulfill the 30-year post-closure care period required by 335-14-5-.07(8)(a)1. The Department may shorten or extend the post-closure care period applicable to the hazardous waste facility in accordance with 335-14-5-.07(8)(a)2. and 335-14-8-.03(1)(b).

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls,

including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(g) Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow duly designated officers and employees of the Department or their authorized representative, upon the presentation of credentials and other documents as may be required by law to:

1. Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the AHWMMA, any substances or parameters at any location.

(j) Monitoring and records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by 335-14-5-.05(4)(b)9., and records of all data used to complete the application for this permit, for a period

of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Department at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

3. Records for monitoring information shall include:

(i) The date, exact place, and times of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) Signatory requirements. All applications, reports, or information submitted to the Department shall be signed and certified. [See 335-14-8-.02(2).]

(l) Reporting requirements.

1. Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous wastes; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility, until:

(i) The permittee has submitted to the Department by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii) (I) The Department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(II) Within 15 days of the date of submission of the letter in 335-14-8-.03(1)(l)2.(i), the permittee has not received notice from the Department of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

3. Transfers. This permit is not transferable to any person except after notice to the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the AHWMMA. (See 335-14-8-.04(1).)

4. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

5. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger human health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(I) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(II) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(I) Name, address, and telephone number of the owner or operator;

(II) Name, address, and telephone number of the facility;

(III) Date, time, and type of incident;

(IV) Name and quantity of material(s) involved;

(V) The extent of injuries, if any;

(VI) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(VII) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the

noncompliance. The Department may waive the five day written notice requirement in favor of a written report within fifteen days.

7. Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the Department. [See 335-14-5-.05(3).]

8. Unmanifested waste report: This report must be submitted to the Department within 15 days of receipt of unmanifested waste. [See 335-14-5-.05(7).]

9. Biennial report: A biennial report must be submitted covering facility activities during odd numbered calendar years. [See 335-14-5-.05(6).]

10. Other noncompliance. The permittee shall report all instances of noncompliance not reported under 335-14-8-.03(1)(l)4., (l)5. and (l)6., at the time monitoring reports are submitted. The reports shall contain the information listed in 335-14-8-.03(1)(l)6.

11. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

(m) Information repository. The Department may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in 335-14-8-.08(1)(c)2. The information repository will be governed by the provisions in 335-14-8-.08(1)(c)3. through 6.

(2) <u>Requirements for recording and reporting of monitoring results</u>. All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Chapters 335-14-5 and 335-14-7. Reporting shall be no less than specified in the above regulations.

(3) <u>Establishing permit conditions</u>.

(a) In addition to conditions required in all permits [335-14-8-.03(1)], the Department shall establish conditions, as required on a case-by-case basis, in permits under 335-14-8-.05(1) [duration of permits], 335-14-8-.03(4)(a) [schedules of compliance] and 335-14-8-.03(2) [monitoring].

(b) 1. Each AHWMMA permit shall include permit conditions necessary to achieve compliance with the AHWMMA and rules, including each of the applicable requirements specified in Chapters 335-14-5 and 335-14-7 through 335-14-9. In satisfying this provision, the Department may incorporate applicable requirements of Chapters 335-14-5 and 335-14-7 through 335-14-9 directly into the permit or establish other permit conditions that are based on these Chapters.

2. Each permit issued under the AHWMMA shall contain terms and conditions as the Department determines necessary to protect human health and the environment.

(c) An applicable requirement is a statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. 335-14-8-.08(9) (reopening of comment period) provides a means for reopening permit proceedings at the discretion of the Department where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in 335-14-8-.04(2).

(d) New or reissued permits, and to the extent allowed under 335-14-8-.04(2), modified or revoked and reissued permits shall incorporate each of the applicable requirements referenced in 335-14-8-.03(2).

(e) All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

(4) <u>Schedules of compliance</u>.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the AHWMMA and rules.

1. Any schedules of compliance under 335-14-8-.03(4) shall require compliance as soon as possible.

2. Except as provided in 335-14-8-.03(4)(b)1.(ii), if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of an interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

3. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Department in writing, of its compliance or noncompliance with the interim or final requirements.

(b) A permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

1. If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit;

2. If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements;

3. If the permittee is undecided whether to cease conducting regulated activities, the Department may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under 335-14-8-.03(4)(b)3.(i) it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities; and

4. The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Department, such as resolution of the board of directors of a corporation.

Author: Stephen C. Maurer; Amy P. Zachry; Michael B. Champion; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-40-11 and 22-30-12.
History: July 19, 1982.
Amended: April 9, 1986; September 29, 1986; February 15, 1988; August 24, 1989; March 28, 1997; March 27, 1998; April 13, 2001; April 17, 2003; May 27, 2004; April 3, 2012.

335-14-8-.04 Changes to Permit - Treatment, Storage, and Disposal Facilities.

(1) Transfer of permits.

A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued [under 335-14-8-.04(2)(b)2., or a minor modification made under 335-14-8-.04(3)(a)1.(vii)], to identify the new permittee and incorporate such other requirements as may be necessary under the AHWMMA.

(2) Major modification or revocation and reissuance of permits.

When the Department receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see 335-14-8-.03(1)), receives a request for modification or revocation and reissuance under 335-14-8-.08(2), or conducts a review of the permit file, it may determine whether or not one or more of the causes listed in 335-14-8-.04(2)(a) and (b) for modification, or revocation and reissuance, or both exist. If cause exists, the Department may modify, or revoke and reissue, the permit accordingly, subject to the limitations of 335-14-8-.04(2)(c), and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. (See 335-14-8-.08(3)(c)2.) If cause does not exist under 335-14-8-.04(2) or 335-14-8-.04(3), the Department shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in 335-14-8-.04(3) for a minor modification, the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in 335-14-8 followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees:

1. Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

2. Information. The Department has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance or test methods) and would have justified the application of different permit conditions at the time of issuance;

3. New statutory requirements or rules. The standards or rules on which the permit was based have been changed by statute, through promulgation of new or amended standards or rules, or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause as follows:

(i) Department may modify the permit when the standards or rules on which the permit was based have been changed by statute or amended standards or rules.

(ii) Permittee may request modification when:

(I) The permit condition to be modified was based on a promulgated rule under Chapters 335-14-1 through 335-14-9; and

(II) The Department has revised, withdrawn, or modified that portion of the rule on which the permit condition was based; or

(III) A permittee requests modification in accordance with 335-14-8-.08(3) within ninety (90) days after action on which the request is based.

(iii) For judicial decisions, a court of competent jurisdiction has remanded and stayed Department promulgated rules if the remand and stay concern that portion of the rules on which the permit condition was based or a request is filed by the permittee in accordance with 335-14-8-.08(3) within ninety (90) days of judicial remand;

4. The Department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy;

5. The Department may also modify a permit:

(i) When modification of a closure plan is required under 335-14-5-.07(3)(c) or (9)(d);

(ii) After the Department receives the notification of expected closure under 335-14-5-.07(4), when the Department determines that extension of the 90 to 180 day periods under 335-14-5-.07(4), modification of the 30-year

post-closure period under 335-14-5-.07(8)(a), a continuation of security requirements under 335-14-5-.07(8) (b), or permission to disturb the integrity of the containment system under 335-14-5-.07(8)(c) are unwarranted;

(iii) When the permittee has filed a request under 335-14-5-.08(8)(c) for a variance to the level of financial responsibility or when the Department demonstrates under 335-14-5-.08(8)(d) that an upward adjustment of the level of financial responsibility is required;

(iv) When the corrective action program specified in the permit under 335-14-5-.06(11) has not brought the regulated unit into compliance with the groundwater protection standard within a reasonable period of time;

(v) To include a detection monitoring program meeting the requirements of 335-14-5-.06(9), when the owner or operator has been conducting a compliance monitoring program under 335-14-5-.06(10) or a corrective action program under 335-14-5-.06(11) and compliance period ends before the end of the post-closure care period for the unit;

(vi) When a permit requires a compliance monitoring program under 335-14-5-..06(10), but monitoring data collected prior to permit issuance indicate that the facility is exceeding the groundwater protection standard;

(vii) To include conditions applicable to units at a facility that were not previously included in the facility's permit; and

(viii) When a land treatment unit is not achieving complete treatment of hazardous constituents under its current permit conditions.

6. Notwithstanding any other provision in 335-14-8-.04(2), when a permit for a land disposal facility is reviewed by the Department under 335-14-8-.05(1)(d), the Department shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Chapters 335-14-1 through 335-14-8.

(b) The following are causes to modify or, alternatively, revoke and reissue a permit:

1. Cause exists for termination under 335-14-8-.04(4) and the Department determines that modification or revocation and reissuance is appropriate;

2. The Department has received notification (as required in the permit, see 335-14-8-.03(1)(l)3. of a proposed transfer of the permit).

(c) Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance;

(d) Newly listed or identified wastes and units.

1. The permittee is authorized to continue to manage wastes listed or identified as hazardous under Chapter 335-14-2, or to continue to manage hazardous waste in units newly regulated as hazardous waste units, if:

(i) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the rule listing or identifying the waste, or regulating the unit;

(ii) The permittee submits a minor modification request under 335-14-8-.04(3)(a)15. on or before the date on which the waste or unit becomes subject to the new requirements;

(iii) The permittee is in compliance with the applicable standards of Chapters 335-14-6 and 335-14-7;

(iv) Unless 335-14-8-.04(2)(d)2. applies, the permittee submits a complete permit modification request under 335-14-8-.04(2) within 180 days after the effective date of the rule listing or identifying the waste, or subjecting the unit to 335-14 management standards; and

(v) In the case of land disposal units, the permittee certifies that such unit is in compliance with all applicable requirements of Chapter 335-14-6 for groundwater monitoring and financial responsibility on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit.

(vi) If the owner or operator fails to clarify compliance with all requirements of 335-14-8-.04(2)(d)1.(i) through (d)1.(v), he or she shall lose authority to operate under 335-14-8-.04(2).

2. A major permit modification shall not be required to add newly listed or identified wastes to a facility's permit provided:

(i) The Permittee has complied with 335-14-8-.04(2)(d)1.(i), (ii), and (iii);

(ii) The newly listed wastes are managed in containers, tanks, surface impoundments, or landfills;

(iii) The management of the wastes does not require the addition of units to the permit or the modification of permitted units;

(iv) The management of the wastes does not require a change in the treatment, storage, or disposal processes or management standards for the facility;

(v) The wastes are not dioxin-containing wastes (F020, F021, F022, F023, F026, F027, F028);

(vi) The unit(s) have previously received wastes of the same type (e.g., incinerator scrubber water, incinerator ash); and

(vii) In the case of surface impoundments and landfills, the wastes are:

(I) Wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in rule 335-14-9-.01(8)(a)2.(ii) and provided that the unit meets the minimum technological requirements stated in 335-14-9-.01(5)(h)2; or

(II) Residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in 335-14-9-.01(5)(h)2.

(e) Military hazardous waste munitions treatment and disposal.

1. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:

(i) The facility was in existence as a hazardous waste facility, and the facility was already permitted to handle the waste military munitions, on the date when the waste military munitions became subject to hazardous waste regulatory requirements;

(ii) The permittee submits a minor modification request under 335-14-8-.04(3)(a)16. to remove or amend the permit provision restricting the receipt of off-site waste munitions on or before the date on which the waste military munitions become subject to the hazardous waste regulatory requirements;

(iii) The permittee is in compliance with the applicable standards of Chapters 335-14-6 and 335-14-7; and

(iv) The permittee submits a complete permit modification request under 335-14-8-.04(2) within 180 days of the date when the waste military munitions became subject to hazardous waste regulatory requirement.

2. If the owner or operator fails to clarify compliance with all requirements of 335-14-8-.04(2)(e)1.(i) through (e)1.(iv), he or she shall lose authority to operate under 335-14-8-.04(2).

(3) <u>Minor modifications of permits</u>. Upon the consent of the permittee, the Department may modify a permit to make the corrections or allowances for changes in the permitted activity listed in 335-14-8-.04(3), without following the procedures of rule 335-14-8-.08. Any permit modification not processed as a minor modification under 335-14-8-.04(3) must be made for cause and with rule 335-14-8-.08 draft permit and public notice as required in 335-14-8-.04(2).

(a) Except as provided in 335-14-8-.04(3)(b), minor modifications are limited to the following actions:

1. General Permit Provisions.

(i) Administrative and informational changes.

(ii) Correction of typographical errors.

(iii) Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls).

(iv) Changes in the frequency of, or procedures for, monitoring, reporting, sampling, or maintenance activities by the permittee to provide for more frequent monitoring, reporting, sampling, or maintenance.

(v) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement.

(vi) Change in expiration date of permit to allow earlier permit termination. This does not apply to permits which require post-closure care, post-closure monitoring or corrective action to be conducted.

(vii) Allow for a change in ownership or operational control of a facility where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility between the current and new permittees has been submitted to the Department. Changes in the ownership or operational control of a facility may be made if the new owner or operator submits a revised permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the previous owner or operator shall comply with the requirements of rule 335-14-5-.08 (Financial Requirements), until the new owner or operator has demonstrated to the Department that he is complying with the requirements of that rule. The new owner or operator must demonstrate compliance with rule 335-14-5-.08 requirements within six months of the date of the change in the ownership or operational control of the facility. Upon demonstration to the Department by the new owner or operator of compliance with rule 335-14-5-.08, the Department shall notify the previous owner or operator in writing that he no longer needs to comply with rule 335-14-5-.08 as of the date of demonstration.

(viii) Changes to remove permit conditions that are no longer applicable (i.e., because the standards upon which they are based are no longer applicable to the facility).

2. General Facility Standards.

(i) Changes to waste sampling or analysis methods which are made to conform with Department guidance or regulations.

(ii) Changes to analytical quality assurance/control plan which are made to conform with Department guidance or regulations.

(iii) Changes in procedures for maintaining the operating record.

(iv) Changes in inspection schedules to increase inspection frequency.

(v) Changes in the training plan which do not affect the type or decrease the amount of training given to employees.

(vi) Changes in the contingency plan which are limited to:

(I) The replacement with functionally equivalent equipment, upgrade, or relocation of emergency equipment listed in the contingency plan.

(II) The inclusion of additional equipment in the contingency plan.

(III) Changes in name, address or phone number of coordinators or other persons or agencies identified in the contingency plan.

(vii) Changes in the construction quality assurance plan which are limited to:

(I) Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications.

(II) Reserved.

3. Groundwater Protection.

(i) Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well.

(ii) Changes in groundwater sampling or analysis procedures or monitoring schedule which do not reduce the frequency of monitoring.

(iii) Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred.

4. Closure.

(i) Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility.

(ii) Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period.

(iii) Changes in the expected year of final closure, where other permit conditions are not changed.

(iv) Changes in procedures for decontamination of facility equipment or structures.

5. Post-Closure.

(i) Changes in name, address, or phone number of contact in post-closure plan.

(ii) Changes in the expected year of final closure, where other permit conditions are not changed.

6. Containers.

(i) Addition of a roof to a container unit without alteration of the containment system.

(ii) Reserved.

7. Tanks.

(i) Replacement of a tank with a tank that meets the same design standards and has a capacity within +/- 10 percent of the replaced tank, provided:

(I) The capacity difference is no more than 1500 gallons;

(II) The facility's permitted tank capacity is not increased; and

(III) The replacement tank meets the same conditions in the permit.

(ii) Addition of a roof to a tank unit without alteration of the tank(s) or of the containment system.

8. Waste Piles.

(i) Addition of a roof to a waste pile unit without alteration of the containment system.

(ii) Reserved.

9. Incinerators, boilers, and industrial furnaces.

(i) Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness.

(ii) Changes in the operating requirements set in the permit for conducting a trial burn, provided that the changes are minor.

(iii) Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided that the changes are minor.

(iv) Substitution of an alternative type of non-hazardous waste fuel that is not specified in the permit.

(v) Combustion facility changes to meet part 63 MACT standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under 335-14-8.

(I) Facility owners or operators must have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 12, 2000, (See 40 CFR Part 63 revised as of July 1, 2000) in order to request a permit modification under 335-14-8.

(II) [Reserved]

(vi) Technology changes needed to meet standards under 40 CFR part 63 (Subpart EEE – National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of 335-14-8-.04(3)(a)9.(v) are followed.

10. Drip Pads.

(i) Addition of a roof to a drip pad unit without alteration of the containment system.

(ii) Reserved.

11. Containment Buildings.

(i) Replacement of a containment building with a containment building that meets the same design standards provided:

(I) The unit capacity is not increased; and

(II) The replacement containment building meets the same conditions in the permit.

(ii) Reserved.

12. [Reserved]

13. [Reserved]

14. [Reserved]

15. Newly listed or identified wastes.

(i) Addition of wastes listed or identified as hazardous waste under Chapter 335-14-2 after the date of permit issuance, subject to the conditions of 335-14-8-.04(2)(d).

(ii) Reserved.

16. Military hazardous waste munitions.

(i) Additions of waste military munitions listed or identified as hazardous waste under 335-14-2 after the date of permit issuance, subject to the conditions of 335-14-8-.04(2)(e).

(ii) Reserved.

(b) Other Modifications.

1. In the case of modifications not explicitly listed in 335-14-8-.04(3)(a), the permittee may submit a major modification request to the Department under 335-14-8-.04(2), or he or she may request a determination by the Department that the modification should be reviewed and approved as a minor modification under 335-14-8-.04(3). If the permittee requests that the modification be classified as a minor modification, he or she must provide the Department with the necessary information to support the requested classification.

2. The Department shall make the determination described in 335-14-8-.04(3)(b)1. as promptly as practicable. In determining the appropriate classification for a specific modification, the Department shall consider:

(i) The similarity of the modification to other modifications codified in 335-14-8-.04; and

(ii) The criteria that minor modifications apply only to changes that:

(I) Keep the permit current with routine changes to the facility or its operation; and

(II) Do not substantially alter the permit conditions.

(4) Termination of permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

1. Noncompliance by the permittee with any condition of the permit, any applicable regulation under Division 335-14, any provision of the AHWMMA or any provision of any order issued by the Department under authority of the AHWMMA or the Alabama Environmental Management Act, (Code of Alabama 1975, §§ 22-22A-1 to 22-22A-16);

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

3. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Department shall follow the applicable procedures in rule 335-14-8-.08 in terminating any permit under 335-14-8-.04(4).

Author: Stephen C. Maurer; Stephen A. Cobb; C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12.
History: July 19, 1982.
Amended: April 9, 1986; September 29, 1986; August 24, 1989, January 25, 1992; January 1, 1993; January 5, 1995; March 28, 1997; March 27, 1998; April 2, 1999; April 13, 2001; March 15, 2002; April 17, 2003; April 3, 2012.

335-14-8-.05 Expiration and Continuation of Permits - Treatment, Storage and Disposal Facilities.

(1) Duration of permits.

(a) Permits under Division 335-14 shall be effective for a fixed term not to exceed ten (10) years.. Each permit for an operating landfill disposal facility shall be reviewed no later than five (5) years after the date of issuance or reissuance.

(b) Except as provided in 335-14-8-.05(2), the term of a permit shall not be extended by modification beyond the maximum duration specified in 335-14-8-.05(1).

(c) The Department may issue any permit for a duration that is less than the full allowable term under 335-14-8-.05(1).

(d) Each permit for a land disposal facility shall be reviewed by the Department five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in 335-14-8-.04(2).

(2) Continuation of expiring permits.

(a) The conditions of an expired permit continue in force until the effective date of a new permit if:

1. The permittee has submitted a timely application under 335-14-8-.02(5) and the applicable paragraphs in 335-14-8-.02(6) through (19) which is a complete [under 335-14-8-.02(1)(c)] application for a new permit; and

2. The Department through no fault of the permittee does not issue a new permit with an effective date on or before the expiration date of the previous permit.

(b) Effect. Permits continued under 335-14-8-.05(2) remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Department may choose to do any or all of the following:

1. Initiate enforcement action based on the permit which has been continued;

2. Issue a new permit under rule 335-14-8-.08 with appropriate conditions; or

3. Deny the permit; or

4. Take any other actions authorized by these regulations.

Author: Stephen C. Maurer; Stephen A. Cobb; C. Edwin Johnston; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12.
History: October 12, 1983. **Amended:** Effective: April 9, 1986; **Amended:** Effective: September 29, 1986; **Amended:** Effective: August 24, 1989; **Amended:** Effective: December 6, 1990; **Amended:** Effective: March 28, 1997; **Amended:** Effective: April 13, 2001; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-8-.06 Special Forms of Permits - Treatment, Storage, and Disposal Facilities.

(1) Emergency permits.

(a) Not withstanding any other provision of 335-14-8, in the event the Department finds an imminent and substantial endangerment to human health or the environment, the Department may issue a temporary emergency permit:

1. To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste or,

2. To a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

1. May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

2. Shall not exceed 90 days in duration;

3. Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

4. May be terminated by the Department at any time without process if it determines that termination is appropriate to protect human health and the environment;

5. Shall be accompanied by a public notice published under 335-14-8-.08(6)(b) including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted HWM facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

6. Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of 335-14-8 and Chapters 335-14-5 and 335-14-7.

(2) Hazardous waste incinerator permits.

When an owner or operator demonstrates compliance with the air emission standards and limitations of 335-3-11-.06(56) (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance), the requirements of 335-14-8-.06 do not apply, except those provisions the Director determines are necessary to ensure compliance with 335-14-5-.15(6)(a) and (6)(c) if the facility elects to comply with 335-14-8-.15(1)(a)1.(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Department may apply the provisions of 335-14-8-.06, on a case-by-case basis, for the purposes of information collection in accordance with 335-14-8-.02(1)(k) and 335-14-8-.03(3)(b)2.

(a) For the purposes of determining operational readiness following completion of physical construction, the Department must establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Department may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to 335-14-8-.04(3) (minor modifications of permits).

1. Applicants must submit a statement, with Part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of 335-14-5-.15(4) during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in 335-14-5-.15(6).

2. The Department will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 335-14-5-.15(4) based on its engineering judgment.

(b) For the purposes of determining feasibility of compliance with the performance standards of 335-14-5-.15(4) and of determining adequate operating conditions under 335-14-5-.15(6), the Department must establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

1. Applicants must propose a trial burn plan, prepared under 335-14-8-.06(2)(b)2. with a Part B of the permit application.

2. The trial burn plan must include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(I) Heat value of the waste in the form and composition in which it will be burned;

(II) Viscosity (if applicable), or description of the physical form of the waste;

(III) An identification of any hazardous organic constituents listed in 335-14-2-Appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in 335-14-2-Appendix VIII which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on appropriate analytical techniques; and

(IV) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods;

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(I) Manufacturer's name and model number of incinerator (if available);

(II) Type of incinerator;

(III) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber;

(IV) Description of the auxiliary fuel system (type/feed);

(V) Capacity of prime mover;

(VI) Description of automatic waste feed cut-off system(s);

(VII) Stack gas monitoring and pollution control equipment;

(VIII) Nozzle and burner design;

(IX) Construction materials; and

(X) Location and description of temperature, pressure, and flow indicating and control devices;

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Department's decision under 335-14-8-.06(2)(b)5.;

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator;

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used;

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction; and

(viii) Such other information as the Department reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of 335-14-8-.06(2)(b) and the criteria in 335-14-8-.06(2)(b)5.

3. The Department, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of 335-14-8-.06(2)(b).

4. Based on the waste analysis data in the trial burn plan, the Department will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Department based on its estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in rule 335-14-2-.04, the hazardous waste organic constituent or constituents identified in 335-14-2-Appendix VII as the basis for listing.

5. The Department shall approve a trial burn plan if it finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by 335-14-5-.15(4) can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Department to determine operating requirements to be specified under 335-14-5-.15(6); and

(iv) The information sought in 335-14-8-.06(2)(b)5.(i) and (b)5.(ii) cannot reasonably be developed through other means.

6. The Department must send a notice to all persons on the facility mailing list as set forth in 335-14-8-.08(6)(c)1.(iv) and to the appropriate units of State of Alabama and local government as set forth in 335-14-8-.08(6)(c)1.(v) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Department has issued such notice.

(i) This notice must be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Department.

(ii) This notice must contain:

(I) The name and telephone number of the applicant's contact person;

(II) The name and telephone number of the Department's contact office;

(III) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(IV) An expected time period for commencement and completion of the trial burn.

7. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O_2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in 335-14-5-.15(4)(a).

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with 335-14-5-.15(4)(b).

(vi) A computation of particulate emissions, in accordance with 335-14-5-.15(4)(c).

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Department may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in 335-14-5-.15(4) and to establish the operating conditions required by 335-14-5-.15(6) as necessary to meet that performance standard.

8. The applicant must submit to the Department a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in 335-14-8-.06(2)(b)6. This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Department.

9. All data collected during any trial burn must be submitted to the Department following the completion of the trial burn.

10. All submissions required by 335-14-8-.06(2)(b) must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 335-14-8-.02(2).

11. Based on the results of the trial burn, the Department shall set the operating requirements in the final permit according to 335-14-5-.15(6). The permit modification shall proceed according to the requirements of rule 335-14-8-.04.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Department may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of 335-14-5-.15(6), in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Department.

1. Applicants must submit a statement, with Part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of 335-14-5-.15(4) during this period. This

statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in 335-14-5-.15(6).

2. The Department will review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of 335-14-5-.15(4) and of determining adequate operating conditions under 335-14-5-.15(6), the applicant for a permit to an existing hazardous waste incinerator may prepare and submit a trial burn plan and perform a trial burn in accordance with 335-14-8-.06(2)(b)2. through (b)9. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in 335-14-8-.06(2)(b)6., with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Department to establish a later date for submission of the Part B application or the trial burn results. If the applicant submits a trial burn plan with Part B of the permit application, the trial burn must be conducted and the results submitted within a time period to be specified by the Department.

(d) For the purpose of determining feasibility of compliance with the performance standards of 335-14-5-.15(4) and of determining adequate operating conditions under 335-14-5-.15(6), the applicant for a permit for an existing hazardous waste incinerator must prepare and submit a trial burn plan and perform a trial burn in accordance with 335-14-8-.02(10)(b) and 335-14-8-.06(2)(b)2. through (b)5. and 335-14-8-.06(2)(b)7. through (b)9. or, instead, submit other information as specified in 335-14-8-.02(10)(c). The Department must announce its intention to approve the trial burn plan in accordance with the timing and distribution requirements of 335-14-8-.06(2)(b)6. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the Department; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Department approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under 335-14-8-.02(10)(a) are exempt from compliance with 335-14-5-.15(4) and 335-14-5-.15(6) and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in 335-14-8-.06(2)(b)7. with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Department to establish a later date for submission of the Part B application or the trial burn results. Trial burn results must be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with Part B of the permit application, the Department will specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

(3) <u>Permits for land treatment demonstrations using field test or laboratory analyses</u>.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of 335-14-5-.13(3), the Department may issue a treatment demonstration permit. The permit must contain only those requirements necessary to meet the standards in 335-14-5-.13(3)(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction, operation and maintenance of the land treatment unit.

1. The Department may issue a two-phase facility permit if it finds that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

2. If the Department finds that not enough information exists upon which it can establish permit conditions to attempt to provide for compliance with all of the requirements of rule 335-14-5-.13, it must issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Department finds that a phased permit may be issued, it will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration clean-up activities, and any other conditions which the Department finds may be necessary under 335-14-5-.13(3)(c). The Department will include conditions in the second phase of the facility permit to attempt to meet all rule 335-14-5-.13 requirements pertaining to unit design, construction, operation and maintenance. The Department will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

1. The first phase of the permit will be effective upon issuance unless stayed by the Department, the Commission or a court of competent jurisdiction.

2. The second phase of the permit will be effective as provided in 335-14-8-.06(3)(d).

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the Department a certification, signed by a person authorized to sign a permit application or report under 335-14-8-.02(2), that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Department approves a later date.

(d) If the Department determines that the results of the field test or laboratory analyses meet the requirements of 335-14-5-.13(3), it will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with rule 335-14-5-.13, based upon the results of the field tests or laboratory analyses.

1. This permit modification will proceed as a major modification under 335-14-8-.04(2), unless a determination is made under 335-14-8-.04(3)(b) that the modification is a minor modification and, thus, should be processed under 335-14-8-.04(3). If modifications under 335-14-8-.04(2) are necessary, the second phase of the permit will become effective only after those modifications have been made.

2. If no modifications of the second phase of the permit are necessary, or if only minor modifications are necessary and have been made, the Department will give notice of its final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision of the second phase of the permit. The second phase of the permit then will become effective as specified in the permit or as otherwise directed by the Department unless stayed by the Commission or a court of competent jurisdiction.

(4) <u>Research, development, and demonstration permits</u>.

(a) The Department may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under 335-14-5 or 335-14-7. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

1. Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in 335-14-8-.06(4)(d), and

2. Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Department deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

3. Shall include such requirements as the Department deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as the Department deems necessary regarding testing and providing of information to the Department with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under 335-14-8-.06(4), the Department may, consistent with the protection of human health and the environment, modify or waive permit application and permit

issuance requirements in 335-14-8 except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures regarding public participation.

(c) The Department may order an immediate termination of all operations at the facility at any time it determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under 335-14-8-.06(4) may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

(5) Permits for boilers and industrial furnaces burning hazardous waste. When an owner or operator of a cement or lightweight aggregate kiln demonstrates compliance with the air emission standards and limitations of 335-3-11-.06(56) (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance), the requirements of 335-14-8-.06 do not apply, except those provisions the Director determines are necessary to ensure compliance with 335-14-7-.08 if the facility elects to comply with 335-14-8-.15(1)(a)1.(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Department may apply the provisions of 335-14-8-.06, on a case-by-case basis, for the purposes of information collection in accordance with 335-14-8-.02(1)(k) and 335-14-8-.03(3)(b)2.

(a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of 335-14-7-.08(4)) are subject to 335-14-8-.06(5)(b) through (f). Boilers and industrial furnaces operating under the interim status standards of 335-14-7-.08(4) are subject to 335-14-8-.06(5)(g).

(b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

1. Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Department must establish in the Pretrial Burn Period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The Department may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to 335-14-8-.04(3).

(i) Applicants must submit a statement, with Part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of 335-14-7-.08(5) through 335-14-7-.08(8) during this period.

This statement should include, at a minimum, restrictions on the applicable operating requirements identified in 335-14-7-.08(3)(e).

(ii) The Department will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8) based on his/her engineering judgment.

2. Trial burn period. For the duration of the trial burn, the Department must establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards 335-14-7-.08(5) through 335-14-7-.08(8) and determining adequate operating conditions under 335-14-7-.08(3)(e). Applicants must propose a trial burn plan, prepared under 335-14-8-.06(5)(c), to be submitted with Part B of the permit application.

3. Post-trial burn period.

(i) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Department to reflect the trial burn results, the Department will establish the operating requirements most likely to ensure compliance with the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8) based on his/her engineering judgment.

(ii) Applicants must submit a statement, with Part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8). This statement should include, at a minimum, restrictions on the operating requirements provided by 335-14-7-.08(3)(e).

(iii) The Department will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8) based on his/her engineering judgment.

4. Final permit period. For the final period of operation, the Department will develop operating requirements in conformance with 335-14-7-.08(3)(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8). Based on the trial burn results, the Department shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification shall proceed according to 335-14-8-.04(3).

(c) Requirements for trial burn plans. The trial burn plan must include the following information. The Department, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the

applicant to supplement this information, if necessary, to achieve the purposes of 335-14-8-.06(5):

1. An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

(i) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

(ii) Viscosity or description of the physical form of the feed stream;

2. An analysis of each hazardous waste, as fired, including:

(i) An identification of any hazardous organic constituents listed in 335-14-2-Appendix VIII that are present in the feed stream, except that the applicant need not analyze for constituents listed in 335-14-2-Appendix VIII that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified and the basis for this exclusion explained. The waste analysis must be conducted in accordance with appropriate analytical techniques.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

(iii) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

3. A detailed engineering description of the boiler or industrial furnace, including:

(i) Manufacturer's name and model number of the boiler or industrial furnace;

(ii) Type of boiler or industrial furnace;

(iii) Maximum design capacity in appropriate units;

(iv) Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;

(v) Capacity of hazardous waste feed system;

(vi) Description of automatic hazardous waste feed cutoff system(s);

(vii) Description of any air pollution control system; and

(viii) Description of stack gas monitoring and any pollution control monitoring systems.

4. A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

5. A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Department's decision under 335-14-8-.06(5)(b)2.

6. A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in 335-14-7-.08(5) through 335-14-7-.08(8).

7. A description of, and planned operating conditions for, any emission control equipment that will be used.

8. Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

9. Such other information as the Department reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of 335-14-8-.06(5)(c) and the criteria in 335-14-8-.06(5)(b)2.

(d) Trial burn procedures.

1. A trial burn must be conducted to demonstrate conformance with the standards of 335-14-7-.08(5) through 335-14-7-.08(8) under an approved trial burn plan.

2. The Department shall approve a trial burn plan if it finds that:

(i) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8);

(ii) The trial burn itself will not present an imminent hazard to human health and the environment;

(iii) The trial burn will help the Department to determine operating requirements to be specified under 335-14-7-.08(3)(e); and

(iv) The information sought in the trial burn cannot reasonably be developed through other means.

3. The Department must send a notice to all persons on the facility mailing list as set forth in 335-14-8-.08(6)(c)1.(iv) and to the appropriate units of State of Alabama and local government as set forth in 335-14-8-.08(6)(c)1.(v) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Department has issued such notice.

(i) This notice must be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Department.

(ii) This notice must contain:

(I) The name and telephone number of applicant's contact person;

(II) The name and telephone number of the Department contact office;

(III) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(IV) An expected time period for commencement and completion of the trial burn.

4. The applicant must submit to the Department a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in 335-14-8-.06(5)(c). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Department.

5. All data collected during any trial burn must be submitted to the Department following completion of the trial burn.

6. All submissions required by 335-14-8-.06(5)(d) must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 335-14-8-.02(2).

(e) Special procedures for DRE trial burns. When a DRE trial burn is required under 335-14-7-.08(5)(a), the Department will specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Department based on information including its estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in rule 335-14-2-.04, the hazardous waste organic constituents(s) identified in 335-14-2-Appendix VII as the basis for listing.

(f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

1. A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);

2. When a DRE trial burn is required under 335-14-7-.08(5)(a):

(i) A quantitative analysis of the trial POHCs in the hazardous waste feed;

(ii) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

(iii) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in 335-14-7-.08(5)(a);

3. When a trial burn for chlorinated dioxins and furans is required under 335-14-7-.08(5)(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra-octa congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard;

4. When a trial burn for particulate matter, metals, or HCl/Cl_2 is required under 335-14-7-.08(6), 335-14-7-.08(7)(c) or (d), or 335-14-7-.08(8)(b)2. or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl_2), and computations showing conformance with the applicable emission performance standards;

5. When a trial burn for DRE, metals, or HCl/Cl_2 is required under 335-14-7-.08(5)(a), 335-14-7-.08(7)(c) or (d), or 335-14-7-.08(8)(b)2. or (c), a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals and chlorine/chloride;

6. An identification of sources of fugitive emissions and their means of control;

7. A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

8. Such other information as the Department may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in 335-14-7-.08(5) through 335-14-7-.08(8) and to establish the operating conditions required by 335-14-7-.08(3)(e) as necessary to meet those performance standards.

(g) Interim status boilers and industrial furnaces. For the purposes of determining feasibility of compliance with the performance standards of 335-14-7-.08(5) through 335-14-7-.08(8) and of determining adequate operating conditions under 335-14-7-.08(4), applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of 335-14-7-.08(4) must either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of 335-14-8-.06(5) or submit other information as specified in 335-14-8-.02(13)(a)6. The Department must announce its intention to approve the trial burn plan in accordance with the timing and distribution requirements of 335-14-8-.06(5)(d)3. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the Department; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Department approval of the plan and the time periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the Part B permit application must complete the trial burn and submit the results specified in 335-14-8-.06(5)(f) with the Part B permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Department to establish a later date for submission of the Part B application or the trial burn results. If the applicant submits a trial burn plan with Part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Department.

(6) [Reserved]

(7) [Reserved]

(8) Alternative Post-closure Permits.

Alternative post-closure permits are special forms of permits that are regulated under 335-14-8-.02(19)(b) and 335-14-8-.08.

Author: Stephen C. Maurer; Amy P. Zachry; Stephen A. Cobb; C. Edwin Johnston; Bradley N. Curvin; Heather M. Jones.
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History: October 12, 1983.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; January 25, 1992; January 12, 1996; March 28, 1997; March 27, 1998; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; April 4, 2006; April 3, 2007; April 3, 2012.

335-14-8-.07 Interim Status - Treatment, Storage, and Disposal Facilities.

(1) Qualifying for interim status.

(a) Any person who owns or operates an "existing HWM facility" or a facility in existence on the effective date of statutory or regulatory amendments under the AHWMMA that render the facility subject to the requirement to have an AHWMMA permit shall have interim status and shall be treated as having been issued a permit to the extent he or she has:

1. Complied with the requirements of Section 3010(a) of RCRA pertaining to notification of hazardous waste activity;

2. Complied with the requirements of 335-14-8-.02(1) governing submission of Part A applications.

(b) If the Department has reason to believe upon examination of a Part A application, that it fails to meet the requirements of 335-14-8-.02(4), it shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the Department's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part A application. If, after such notification and opportunity for response, the Department determines that the application is deficient, it may take appropriate enforcement action.

(c) Hazardous waste disposal facilities which were previously issued a solid waste letter of approval or permit will be granted interim status if they comply fully with 335-14-8-.07.

(d) 335-14-8-.07(1)(a) shall not apply to any facility which has been previously denied a AHWMMA permit or if authority to operate the facility under AHWMMA has been previously terminated.

(2) <u>Operation under interim status</u>.

(a) During the interim status period the facility shall not:

1. Treat, store, or dispose of hazardous waste not specified in Part A of the permit application;

2. Employ processes not specified in Part A of the permit application; or

3. Exceed the design capacities specified in Part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards in Chapter 335-14-6.

(3) <u>Changes during interim status</u>.

(a) Except as provided in 335-14-8-.07(3)(b) and (c), the owner or operator of an interim status facility may make the following changes at the facility:

1. Treatment, storage, or disposal of newly listed or identified wastes not previously identified in Part A of the permit application, and the addition of the units being used to treat, store, or dispose of the newly listed or identified hazardous wastes provided that the owner or operator has treated, stored or disposed of the newly listed or identified hazardous waste prior to the effective date of the listing or identification if the owner or operator submits a revised Part A permit application thirty days prior to the effective date of the listing or identification for such treatment, storage, or disposal, and the facility is in substantial compliance with all requirements of Division 335-14;

2. Increases in the design capacity of processes used at the facility and the addition of new hazardous wastes not previously identified in Part A of the permit application, and the addition of newly listed or identified hazardous wastes which are not treated, stored, or disposed at the facility prior to the effective date of the listing or identification, if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Department approves the changes because:

(i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or

(ii) The change is necessary to comply with a Federal, State of Alabama, or local requirement.

3. Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised Part A permit application prior to such change (along with a justification explaining the need for the change) and the Department approves the change because:

(i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or

(ii) The change is necessary to comply with a Federal, State of Alabama, or local requirement.

4. Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of operational control of a facility occurs, the previous owner or operator shall comply with the requirements of rule 335-14-6-.08 (Financial Requirements), until the new owner or operator has demonstrated to the Department that he is complying with the requirements of that rule. The new owner or operator must demonstrate compliance with rule 335-14-6-.08 requirements within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Department by the new owner or operator of compliance with rule 335-14-6-.08, the Department shall notify the previous owner or operator in writing that he no longer needs to comply with rule 335-14-6-.08 as of the date of demonstration. All other interim status duties are transferred

effective immediately upon the date of the change in ownership or operational control of the facility.

5. Changes made in accordance with an interim status corrective action order issued by EPA under Section 3008(h) or other Federal authority, by the State of Alabama under comparable State of Alabama authority, or by a court in a judicial action brought by EPA or by the State of Alabama. Changes under 335-14-8-.07(3)(a) are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

6. Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised Part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under 335-14-8-.07(3)(b), changes listed under 335-14-8-.07(3)(a) may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

1. Changes made solely for the purposes of complying with the requirements of 335-14-6-.10(4) for tanks and ancillary equipment.

2. If necessary to comply with Federal, State of Alabama, or local requirements, changes to an existing unit, or changes solely involving tanks or containers.

3. Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

4. Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

5. Changes necessary to comply with an interim status corrective action order issued by EPA under Section 3008(h) or other Federal authority, by the Department under comparable State of Alabama authority, or by a court in a judicial proceeding brought by EPA or the Department, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

6. Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by Chapter 335-14-9 or RCRA Section 3004, provided that such changes are made solely for the purpose of complying with Chapter 335-14-9 or RCRA Section 3004.

7. Addition of newly regulated units under 335-14-8-.07(3)(a)6.

8. Changes necessary to comply with standards under 40 CFR 63, Subpart EEE - National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

(c) Except as provided by 335-14-8-.07(3)(a), the addition of new treatment processes, new treatment units, or an increase in design capacity not previously identified in Part A of the permit application and which are subject to the requirements of rule 335-14-5-.15 or rule 335-14-6-.15 may not be added as a change during interim status. Such changes may only be made by applying for and being issued an AHWMMA permit for such treatment processes, treatment units, or design capacity, in accordance with the requirements of rules 335-14-8-.02 and 8-.03, or by modifying an existing AHWMMA permit in accordance with the requirements of rule 335-14-8-.04.

(4) Termination of interim status.

(a) Interim status is terminated when:

1. Final administrative disposition of a permit application is made; or

2. The permittee fails to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application.

(b) Interim status may be terminated when:

1. The permittee fails to comply with the applicable requirements of Chapter 335-14-6 or the AHWMMA; or

2. The permittee fails to comply with an Order issued by the Department.

(c) Interim status for each land treatment, storage, or disposal facility which was granted interim status prior to November 8, 1984 is terminated on the effective date of these rules unless:

1. The owner or operator submitted a Part B application for a permit to EPA on or before November 8, 1985; and

2. The owner or operator certified, on or before November 8, 1985, that such facility was in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(d) Interim status for each land treatment, storage, or disposal facility which is in existence on the effective date of statutory or regulatory amendments under the AHWMMA that render the facility subject to the requirement to have an AHWMMA permit will be terminated twelve months after the date on which the facility first becomes subject to such permit requirement unless:

1. The owner or operator submits a Part B application for an AHWMMA permit on or before the date twelve months after the date on which the facility first becomes subject to such permit requirement;

2. The owner or operator certified, on or before the date twelve months after the date on which the facility first becomes subject to such permit requirement, that such facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under 335-14-8-.07(3)(a)1., 2., or 3., on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

(f) For owners and operators of each incinerator facility which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1989, unless the owner or operator of the facility submits a Part B application for a RCRA permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility (other than a land disposal or an incinerator facility) which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator of the facility submits a Part B application for a RCRA permit for the facility by November 8, 1988.

Author: Stephen C. Maurer; Steven O. Jenkins; Stephen A. Cobb; C. Edwin Johnston; Bradley N. Curvin.
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335-14-8-.08 Procedures for Decisionmaking - Treatment, Storage, and Disposal Facility Permits.

(1) Specific Procedures Applicable to AHWMMA Permits.

(a) Pre-application public meeting and notice.

1. Applicability. The requirements of 335-14-8-.08(1) shall apply to all AHWMMA Part B applications seeking initial permits for hazardous waste management units over which ADEM has permit issuance authority. The requirements of 335-14-8-.08(1) shall also apply to AHWMMA Part B applications seeking renewal of permits for such units, where the renewal application is proposing a significant change in facility operations. For the purposes of 335-14-8-.08(1), a "significant change" is any change that would qualify as a major permit modification under 335-14-8-.04(2). The requirements of 335-14-8-.08(1)

do not apply to permit modifications under 335-14-8-.04(2) and (3) or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

2. Prior to the submission of an AHWMMA Part B permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

3. The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under 335-14-8-.08(1)(a)2., and copies of any written comments or materials submitted at the meeting, to the Department as a part of the Part B application, in accordance with 335-14-8-.02(5)(b).

4. The applicant must provide public notice of the pre-application meeting at least 30 days prior to the meeting. The applicant must maintain, and provide to the Department upon request, documentation of the notice.

(i) The applicant shall provide public notice in all of the following forms:

(I) A newspaper advertisement. The applicant shall publish a notice, fulfilling the requirements in 335-14-8-.08(1)(a)4.(ii), in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the Department shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, where the Department determines that such publication is necessary to inform the affected public. The notice must be published as a display advertisement.

(II) A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in 335-14-8-.08(1)(a)4.(ii). If the applicant places the sign on the facility property, then the sign must be large enough to be readable from the nearest point where the public would pass by the site.

(III) A broadcast media announcement. The applicant shall broadcast a notice, fulfilling the requirements in 335-14-8-.08(1)(a)4.(ii), at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the Department.

(IV) A notice to the Department. The applicant shall send a copy of the newspaper notice to the Department and to the appropriate units of State of Alabama and local government, in accordance with 335-14-8-.08(6)(c)1.(v).

(ii) The notices required under 335-14-8-.08(1)(a)4.(i) must include:

(I) The date, time, and location of the meeting;

(II) A brief description of the purpose of the meeting;

(III) A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location;

(IV) A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and

(V) The name, address, and telephone number of a contact person for the applicant.

(b) Public notice requirements at the application stage.

1. Applicability. The requirements of 335-14-8-.08(1) shall apply to all AHWMMA Part B applications seeking initial permits for hazardous waste management units over which ADEM has permit issuance authority. The requirements of 335-14-8-.08(1) shall also apply to AHWMMA Part B applications seeking renewal of permits for such units under 335-14-8-.05(2). The requirements of 335-14-8-.08(1) do not apply to permit modifications pursuant to 335-14-8-.04(2) and (3) or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

2. Notification at application submittal.

(i) The Department shall provide public notice as set forth in 335-14-8-.08(6)(c), and notice to appropriate units of State of Alabama and local government as set forth in 335-14-8-.08(6)(c)1.(v), that a Part B permit application has been submitted to the Department and is available for review.

(ii) The notice shall be published within a reasonable period of time after the application is received by the Department. The notice must include:

(I) The name and telephone number of the applicant's contact person;

(II) The name and telephone number of the Department's contact office, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

(III) An address to which people can write in order to be put on the facility mailing list;

(IV) The location where copies of the permit application and any supporting documents can be viewed and copied;

(V) A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice; and

(VI) The date that the application was submitted.

3. Concurrent with the notice required under 335-14-8-.08(1)(b)2., the Department must place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the Department's office.

(c) Information repository.

1. Applicability. The requirements of 335-14-8-.08(1) apply to all applications seeking AHWMMA permits for hazardous waste management units over which ADEM has permit issuance authority.

2. The Department may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the Department shall consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the Department determines, at any time after submittal of a permit application, that there is a need for a repository, then the Department shall notify the facility that it must establish and maintain an information repository. [See 335-14-8-.03(1)(m) for similar provisions relating to the information repository during the life of a permit.]

3. The information repository shall contain all documents, reports, data, and information deemed necessary by the Department to fulfill the purposes for which the repository is established. The Department shall have the discretion to limit the contents of the repository.

4. The information repository shall be located and maintained at a site chosen by the facility. If the Department finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Department shall specify a more appropriate site.

5. The Department shall specify requirements for informing the public about the information repository. At a minimum, the Department shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

6. The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Department. The Department may close the repository at its discretion, based on the factors in 335-14-8-.08(1)(c)2.

(2) <u>Application for a permit</u>.

(a) Any person who requires a permit shall complete, sign, and submit to the Department an application for each permit required under 335-14-8-.01(1).

(b) The Department shall not begin the processing of a permit until the applicant has fully complied with the requirements for that permit as set out in the applicable portions of 335-14-8.

(c) Permit applications must comply with the signature and certification requirements of 335-14-8-.02(2).

(d) The Department shall review for completeness every application for a permit. Upon completing the review, the Department shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Department shall list the information necessary to make the application complete. The Department shall specify in the notice of deficiency a date for submitting the necessary information. The Department may request any information necessary to clarify, modify, or supplement previously submitted material but requests for items not required by rules 335-14-8-.02 or 335-14-8-.13 will not render an application incomplete.

(e) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement action may be taken.

(3) Modification, revocation and reissuance or termination of permits.

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Department's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in 335-14-8-.04(2) or (4). All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Department decides that the request is not justified, it shall send the requester a brief written response giving a reason for the decision. Denials of such requests are not subject to public notice, comment or hearings.

(c) 1. If the Department tentatively decides to modify or revoke and reissue a permit under 335-14-8-.04(2), it shall prepare a draft permit under 335-14-8-.08(4) incorporating the proposed changes. The Department may request additional information and, in the case of a modified permit, may require the submission of an updated application. In case of revoked and reissued permits, the Department shall require the submission of a new application.

2. In a permit modification under 335-14-8-.08(3), only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under 335-14-8-.08(3), the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

3. Minor modifications as defined in 335-14-8-.04(3) are not subject to the requirements of 335-14-8-.08(3).

(d) If the Department tentatively decides to terminate a permit under 335-14-8-.04(4), it shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures of any draft permit prepared under 335-14-8-.08(4).

(4) Draft permits.

(a) Once an application is complete, the Department shall tentatively decide whether to prepare a draft permit or deny the application.

(b) If the Department tentatively decides to deny the permit application, it shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit prepared under 335-14-8-.08(4). If the Department's final decision is that the tentative decision to deny the permit application was incorrect, it shall withdraw the notice of intent to deny and proceed to prepare a draft permit under 335-14-8-.08(4)(c).

(c) If the Department decides to prepare a draft permit, it shall prepare a draft permit that contains the following information:

1. All conditions under 335-14-8-.03(1) and (3);

2. All compliance schedules under 335-14-8-.03(4);

3. All monitoring requirements under 335-14-8-.03(2); and

4. Standards for treatment, storage or disposal and other permit conditions under 335-14-8-.03(1).

(d) Draft permits prepared under 335-14-8-.08(4) shall be accompanied by a fact sheet if required under 335-14-8-.08(5).

(5) Fact sheet.

(a) A fact sheet shall be prepared for every draft permit for a major HWM facility and for every draft permit that the Department finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The Department shall send this fact sheet to the applicant and, upon request, to any other person.

(b) The fact sheet shall include when applicable:

1. A brief description of the type of facility or activity which is the subject of the draft permit;

2. The type and quantity of wastes which are proposed to be or are being treated, stored, or disposed of;

3. A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions;

4. Reasons why any requested variances or alternatives to required standards do not appear justified;

5. A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under 335-14-8-.08(6) and the address where comments will be received;

(ii) Procedures for requesting a hearing or the date and time of the hearing if scheduled at the time the draft permit is issued, and the nature of the hearing;

(iii) Any other procedures by which the public may participate in the final decision; and

6. Name and telephone number of a person to contact for additional information.

(6) Public notice of permit actions and public comment period.

(a) Scope.

1. The Department shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied under 335-14-8-.08(4)(b);

(ii) A draft permit has been prepared under 335-14-8-.08(4)(c); or

(iii) A hearing has been scheduled under 335-14-8-.08(8).

2. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under 335-14-8-.08(3)(b). Written notice of the denial shall be given to the requester and to the permittee.

3. Public notices may describe more than one permit or permit action.

(b) Timing.

1. Public notice of the preparation of a draft permit required under 335-14-8-.08(6)(a) shall allow at least 45 days for public comment.

2. Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be made in the notice in 335-14-8-.08(6) (b)1.)

(c) Public notice of activities described in 335-14-8-.08(6)(a)1. shall be given by the following methods:

1. By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under 335-14-8-.08(6)(c) may waive his right to receive notice):

(i) The applicant;

(ii) Any other agency which the Department knows has issued or is required to issue a RCRA, UIC, PSD, NPDES or 404 permit for the same facility or activity;

(iii) Federal and State of Alabama agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State of Alabama Historic Preservation Officers, including any affected States (Indian Tribes). [For purposes of 335-14-8-.08(6)(c), and in the context of the Underground Injection Control Program only, the term State includes Indian Tribes treated as States.]

(iv) Persons on a mailing list developed by:

(I) Including those who request in writing to be on the list;

(II) Soliciting persons for area lists from participants in past permit proceedings in that area; and

(III) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as regional and State of Alabama funded newsletters, environmental bulletins, or State of Alabama law journals. The Department may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Department may delete from the list the name of any person who fails to respond to such a request; and

(v) (I) To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

(II) To each State of Alabama agency having any authority under State of Alabama law with respect to the construction or operation of such facility.

2. Publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations.

3. Any other method reasonably calculated to give actual notice of the action in question to persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) Contents.

1. All public notices issued under 335-14-8-.08 shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which the notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application;

(iv) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, fact sheet, and the application; and

(v) A brief description of the comment procedures required by 335-14-8-.08(7) and (8) and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision.

2. In addition to the general public notice described in 335-14-8-.08(6)(d)1., of the public notice for a hearing under 335-14-8-.08(8) shall contain the following information:

(i) Reference to the date of previous public notices relating to the permit;

(ii) Date, time, and place of the hearing; and

(iii) A brief description of the nature and purpose of the hearing, including applicable rules and procedures.

(e) In addition to the general public notice described in 335-14-8-.08(6)(d)1., all persons identified in 335-14-8-.08(6)(c)1.(i), (ii), and (iii), shall be mailed a copy of the fact sheet, the permit application and the draft permit. Upon determination of the number of these persons, the Department will inform the applicant in writing of that number and the applicant shall provide sufficient copies of the permit application to the Department as requested.

(7) <u>Public comments and request for public hearings</u>.

During the public comment period provided under 335-14-8-.08(6), any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in 335-14-8-.08(11).

(8) <u>Public hearings</u>.

(a) 1. The Department shall hold a public hearing whenever it finds, on the basis of requests, a significant degree of interest in a draft permit(s);

2. The Department may also hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision;

3. The Department shall hold a public hearing whenever it receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under 335-14-8-.08(6)(b)1.;

4. The Department shall hold a public hearing on all proposed disposal facility permits;

5. Whenever possible the Department shall schedule a hearing under 335-14-8-.08(8) at a location convenient to the nearest population center to the proposed facility;

6. Public notices of the hearing shall be given as specified in 335-14-8-.08(6).

(b) Any person may submit oral or written statements or data concerning the draft permit. Reasonable time limits may be set upon the time allowed for oral statements and the submission of statements in writing may be required. The comment period will automatically extend to the close of any public hearing under 335-14-8-.08(8). The hearing officer may also extend the comment period by so stating at the hearing.

(c) A written transcript of the public hearing shall be available for public inspection.

(9) <u>Obligation to raise issues and provide information during the public comment period</u>.

All persons, including applicants, who believe that any condition of a draft permit is inappropriate or that the Department's tentative decision to deny an application, terminate a permit or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the comment period. Any supporting materials which are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State of Alabama or federal statutes or regulations, Department documents of general applicability or other generally available reference materials. Commenters shall make supporting documents not already included in the administrative record available to the Department as it shall direct.

(10) <u>Reopening of the public comment period</u>.

(a) 1. The Department may order the comment period reopened if the procedures of 335-14-8-.08(10)(a) could expedite the decision making process. When the public comment period is reopened under 335-14-8-.08(10)(a), all persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Department's tentative decision to deny an application, terminate a permit or prepare a draft permit is inappropriate must submit all reasonable available factual grounds supporting their position, including all supporting material, by a date, not less than sixty days after public notice under 335-14-8-.08(10)(a)2., set by the Department. Thereafter, any person may file a written response to the material filed by any other person, by a date, not less than twenty days after the date set for filing of the material, set by the Department.

2. Public notice of any comment period under 335-14-8-.08(10)(a) shall identify the issues to which the requirements of 335-14-8-.08(10)(a) apply.

(b) If any data, information, or arguments submitted during the public comment period, including information or arguments required under 335-14-8-.08(9), appear to raise substantial new questions concerning a permit, the Department may take one or more of the following actions:

1. Prepare a new draft permit, appropriately modified, under 335-14-8-.08(4);

2. Prepare a revised fact sheet under 335-14-8-.08(5) and reopen the comment period under 335-14-8-.08(10); or

3. Reopen or extend the comment period under 335-14-8-.08(6) to give interested persons an opportunity to comment on the information or arguments submitted.

(c) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under 335-14-8-.08(6) shall define the scope of the reopening.

(d) Public notice of any of the actions in 335-14-8-.08(10) shall be given as specified in 335-14-8-.08(6).

(11) <u>Response to comments</u>.

(a) At the time any final permit is issued, the Department shall issue a response to comments. This response shall:

1. Specify which provisions, if any, of the draft permit have been changed in the final permit and the reasons for the change; and

2. Briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

(b) The response to comments shall be available to the public.

(12) Issuance of permit.

After the close of the public comment period under 335-14-8-.08(6) on a draft permit, the Department shall issue a final permit decision [or a decision to deny a permit for the active life of a AHWMMA hazardous waste management facility or unit under 335-14-8-.02(20)].

(13) Severability. If an appeal of a final permit decision under 335-14-8-.08(12) is sought under Code of Alabama 1975, § 22-22A-7 and a portion of the permit decision is stayed as provided in Code of Alabama 1975, § 22-22A-7(c)(4):

(a) Uncontested conditions which are not severable from those contested shall be stayed together with the contested conditions;

(b) All other provisions shall remain fully effective and enforceable; and

(c) Existing facilities shall remain subject to the interim status permit standards in Chapter 335-14-6 in lieu of any stayed provisions.

Author: Stephen C. Maurer; Stephen A. Cobb; Amy P. Zachry; C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12.
History: July 19, 1982.
Amended: April 9, 1986; September 29, 1986; August 24, 1989; December 6, 1990; January 1, 1993; March 28, 1997; April 13, 2001; March 15, 2002; April 17, 2003; April 3, 2012.

335-14-8-.09 Permit Application - Transporters.

(1) General application requirements.

(a) Any person who is required to have an Alabama Hazardous Waste Transport Permit or Alabama Used Oil Transport Permit, including new applicants and permittees with expiring permits, shall complete, sign, and submit an application to the Department as described in 335-14-8-.09.

1. A transporter with an Alabama Hazardous Waste Transport Permit may also transport used oil, so long as the transportation of used oil is conducted in accordance with the requirements of rule 335-14-17-.05.

2. A transporter with an Alabama Used Oil Transport Permit may not transport hazardous waste without first applying for, and receiving, an Alabama Hazardous Waste Transport Permit.

(b) The Department shall not issue a permit before receiving a complete application for a permit except for emergency permits. An application for a permit is complete when the Department receives an application and any supplemental information which are completed to the Department's satisfaction.

(c) All applicants shall provide the information set forth in 335-14-8-.09(4).

(d) No applicant shall begin hazardous waste or used oil transportation activities prior to the granting of the appropriate permit by the Department except as directed by the Department during emergency response.

(e) Any transporter with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit.

(f) Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted to the Department for at least 3 years from the date the application is signed unless the Department extends the time period.

(2) Signatories to permit applications.

(a) All permit applications shall be signed as follows:

1. For a corporation, by a responsible corporate officer. For the purpose of 335-14-8-.09(2), a responsible corporate officer means:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy making or decision making functions for the corporation;

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State of Alabama, Federal, or other public agency by either a principal executive officer or ranking elected official.

(b) Any person signing a permit application under 335-14-8-.09 shall make the following certification:

"I certify under penalty of law that this permit application and all attachments were prepared under my direction or supervision in a manner to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person(s) who gathered and evaluated the information and of the person(s) responsible for managing the regulated activity, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that it is my responsibility to notify the Department within forty-five (45) days of changes in information in the current permit application."

(3) Confidentiality.

An applicant may claim information submitted as confidential if the information is protectable under Code of Alabama 1975, § 22-30-18, as amended.

The term "trade secret" as used in § 22-30-18 is defined in Code of Alabama 1975, § 22-30-3(12).

(4) Contents of the permit application. The permit application under 335-14-8-.09 shall include the following information:

(a) Name, address, telephone number, and EPA identification number of the applicant;

(b) Address(es) and telephone number(s) of any transfer facilities operated by the applicant in Alabama;

(c) A description of the type and scope (numbers and types of vehicles) of operation proposed;

(d) EPA Hazardous Waste Numbers (if applicable), as set out in Chapter 335-14-2, and type of waste (liquids, solids, sludges, gases, dusts, used oil, or others) expected to be transported by the applicant;

(e) A listing of any other environmental permits or authorities granted to the applicant;

(f) Name, address, and telephone number where information, reports, and documents required to be maintained by these regulations may be inspected;

(g) A contingency plan indicating how the applicant will respond to the "worst case" discharge of hazardous waste or used oil, as applicable, during loading, transport, and unloading in order to assure that such discharge does not present a hazard to human health or the environment;

(h) Proof of financial assurance as required under rule 335-14-4-.04 or 335-14-17-.05(4), whichever is greater in the case of transporters handling both used oil and hazardous waste; and

(i) Evidence of training programs, including a detailed outline of the training programs, undertaken by drivers and other personnel involved with the handling and transportation of hazardous waste and/or used oil, as applicable.

Author: Stephen C. Maurer; James T. Shipman; C. Edwin Johnston; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12 and 22-30-15.
History: November 19, 1980.
Amended: April 9, 1986; August 24, 1989; January 5, 1995; April 13, 2001; March 15, 2002; April 3, 2012; April 6, 2018.

335-14-8-.10 Permit Conditions - Transporters.

(1) Duty to comply.

The permittee must comply with all conditions of the permit, except to the extent and for the duration such noncompliance is authorized in an emergency permit. Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the AHWMMA and is grounds for enforcement action, permit termination or for denial of a permit renewal application.

(2) Duty to reapply.

If the permittee wishes to continue an activity regulated under a permit issued by the Department, the permittee must apply for and obtain a new permit.

(3) Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the permit conditions.

(4) Noncompliance.

In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out all reasonable necessary steps to prevent significant adverse impact on human health or the environment.

(5) Proper operation and maintenance.

(a) The permittee shall at all times properly operate and maintain all equipment which is used by the permittee to achieve compliance with the permit.

(b) Proper operation and maintenance includes effective performance, adequate funding, and adequate operating staffing and training.

Proper operation and maintenance also includes the following:

1. Placement of a copy of the permit, as required under rule 335-14-8-.09(1)(d), in each vehicle hauling hazardous waste or used oil in Alabama.

2. Placement of a copy of the Contingency Plan, as required under rule 335-14-8-.09(4)(g), in each vehicle hauling hazardous waste or used oil in Alabama.

3. Demonstration of knowledge of the Contingency Plan, as required under rule 335-14-8-.09(4)(g), by each driver hauling hazardous waste or used oil in Alabama when inspected by the Department.

(6) Permit actions.

This permit may be modified or terminated for cause. A request by the permittee to modify the permit, or a notification of anticipated noncompliance, does not stay any permit condition.

(7) Property rights.

This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) Duty to provide information.

The permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether any cause exists for modifying or terminating the permit, or to determine compliance with the permit.

(9) Inspection and entry. The permittee shall allow duly designated employees of the Department and the Department's representatives to:

(a) Enter at reasonable times upon the permittee's premises where hazardous waste is loaded, unloaded, stored, or transported, or where records, documents, or information required by these regulations are maintained, or into or on transport vehicles used to transport hazardous waste;

(b) Have access to and copy, at reasonable times, any records, documents, or information that must be kept under the conditions of the permit or these regulations;

(c) Inspect at reasonable times any vehicles, facilities, equipment, practices, or operations regulated or required under the permit; and

(d) Sample or monitor any discharges or suspected discharges of hazardous waste at transfer facilities owned or operated by the permittee.

(10) Anticipated noncompliance.

The permittee shall give advance notice to the Department of any activity which may result in noncompliance with the permit.

(11) Transfers.

A permit under 335-14-8-.10 is not transferable.

(12) Other information.

Where the permittee becomes aware that he failed to submit any relevant facts in a permit application, he shall immediately submit such information to the Department.

Author: Stephen C. Maurer; C. Lynn Garthright; James T. Shipman.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12 and 22-30-15.
History: November 19, 1980.
Amended: April 9, 1986; February 15, 1988; August 24, 1989; January 5, 1995; April 13, 2001; April 3, 2012.

335-14-8-.11 Changes to Permits - Transporters.

(1) Modification of permits.

(a) When the Department receives any information or receives a request for modification, it will determine whether or not one or more of the causes for modification of permits listed in 335-14-8-.11(1)(a)1. exists. If cause exists, the Department may modify the permit accordingly and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If cause does not exist, the Department shall not modify the permit.

1. The following are causes for modification:

(i) Material and substantial alterations to the operations of the permittee which occurred after issuance of the permit (i.e., the addition of a new transfer facility for used oil or hazardous waste);

(ii) Receipt of information by the Department which indicates that permit conditions must be modified in order to protect human health or the environment;

(iii) The standards or rules upon which the permit was based have been changed by the Department or judicial decision after issuance of the permit, the permittee requests the modification and the permit condition to be modified is based on the standard or regulation which has been changed; and

(iv) Cause exists for termination and the Department determines modification is appropriate.

(b) Upon the consent of the permittee, the Department may modify a permit to correct typographical errors.

(c) A permittee must request a modification of the permit whenever the information provided in the permit application pursuant to rules 335-14-8-.09(4)(a), (b), (f), or (g) becomes outdated or otherwise inaccurate.

(2) Termination of permits. The following are causes for terminating a permit during its term or for denying a permit renewal application:

(a) Noncompliance by the permittee with any condition of the permit, any rule under Division 335-14, any requirements of the AHWMMA or any

provision of any order issued by the Department under the authority of the AHWMMA or the Alabama Environmental Management Act;

(b) The permittee's failure during the permit application or issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(c) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

Author: Stephen C. Maurer; James T. Shipman.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12.
History: November 19, 1980.
Amended: April 9, 1986; February 15, 1988; August 24, 1989; April 13, 2001.

335-14-8-.12 Expiration and Continuation of Permits - Transporters.

(1) Duration of permits.

(a) Transporter permits shall be effective for a fixed term not to exceed three years.

(b) The term of a permit shall not be extended by modification beyond the three year limit.

(c) The Department may issue any permit for a duration that is less than three years.

(2) Continuation of expiring permits.

(a) The conditions of an existing permit continue in force until the effective date of a new permit if:

1. The permittee has submitted a complete application for a new permit at least 180 days prior to expiration of his existing permit; and

2. The Department through no fault of the permittee does not issue a new permit before the expiration date of the existing permit.

(b) Permits continued under 335-14-8-.12 remain fully effective and enforceable.

Author: Stephen C. Maurer; C. Edwin Johnston.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11 and 22-30-12.
History: April 9, 1986.
Amended: August 24, 1989; April 13, 2001.

335-14-8-.13 Permit Fees.

No permit application under rule 335-14-8-.02 or 335-14-8-.09 is complete without payment of the permit application fees specified in Chapter 335-1-6 of the Department's Administrative Code.

Author: Stephen C. Maurer.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12 and 22-22A-5.
History: April 9, 1986.
Amended: August 24, 1989.

335-14-8-.14 [Reserved].

335-14-8-.15 Integration with Maximum Achievable Control Technology (MACT) Standards.

(1) Options for incinerators and cement and lightweight aggregate kilns to minimize emissions from startup, shutdown, and malfunction events.

(a) Facilities with existing permits.

1. Revisions to permit conditions after documenting compliance with MACT. The owner or operator of a RCRA-permitted incinerator, cement kiln, or lightweight aggregate kiln may request that the Department address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to 335-14-5-.15(1)(b) and 335-14-7-.08:

(i) Retain relevant permit conditions. Under this option, the Department will:

(I) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2); and

(II) Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) Revise relevant permit conditions.

(I) Under this option, the Department will:

I. Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.

II. Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(II) Changes that may significantly increase emissions.

I. The facility must notify the Department in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. The facility must notify the Department of such changes within five days of making such changes. The facility must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

II. The Department may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

A. Upon permit renewal, or, if warranted;

B. By modifying the permit under 335-14-8-.04(2)(a).

(iii) Remove permit conditions. Under this option:

(I) The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Department under 40 CFR 63.1206(c)(2)(ii)(B); and

(II) The Department will remove permit conditions that are no longer applicable according to 335-14-5-.15(1)(b) and 335-14-7-.08.

2. Addressing permit conditions upon permit reissuance. The owner or operator of an incinerator, cement kiln, or lightweight aggregate kiln that has conducted a comprehensive performance test and submitted to the Department a Notification of Compliance documenting compliance with the standards of 40 CFR 63, subpart EEE, may request in the application to reissue the permit for the combustion unit that the Department control emissions from startup, shutdown, and malfunction events under any of the following options:

(i) RCRA option A.

(I) Under this option, the Department will:

I. Include, in the permit, conditions that ensure compliance with 335-14-5-.15(6)(a) and (6)(c) or 335-14-7-.08 to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

II. Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan; or

(II) Reserved.

(ii) RCRA option B.

(I) Under this option, the Department will:

I. Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history; and

II. Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(II) Changes that may significantly increase emissions.

I. The facility must notify the Department in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. The facility must notify the Department of such changes within five days of making such changes. The facility must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

II. The Department may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

A. Upon permit renewal, or, if warranted;

B. By modifying the permit under 335-14-8-.04(2)(a); or

(iii) CAA option. Under this option:

(I) The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Department under 40 CFR 63.1206(c)(2)(ii)(B); and

(II) The Department will omit from the permit conditions that are not applicable under 335-14-5-.15(1)(b) and 335-14-7-.08.

(b) Interim status facilities.

1. Interim status operations. In compliance with 335-14-6-.15(1) and 335-14-7-.08, the owner or operator of an incinerator, cement kiln, or lightweight aggregate kiln that is operating under the interim status standards of 335-14-6 or 335-14-7 may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after

conducting a comprehensive performance test and submitting to the Department a Notification of Compliance documenting compliance with the standards of 335-3-11-.06(56):

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of 335-14-6 or 335-14-7 relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of 335-14-6 or 335-14-7 relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Department that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Department under 40 CFR 63.1206(c)(2)(ii)(B).

2. Operations under a subsequent RCRA permit. When an owner or operator of an incinerator, cement kiln, or lightweight aggregate kiln that is operating under the interim status standards of 335-14-6 or 335-14-7 submits a RCRA permit application, the owner or operator may request that the Department control emissions from startup, shutdown, and malfunction events under any of the options provided by 335-14-8-.15(1)(a)2.(i), (ii), or (iii).

(2) Reserved.

Author: C. Edwin Johnston; Heather M. Jones.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-12, 22-30-16 and 22-30-19.
History: April 17, 2003.
Amended: April 3, 2012.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-9
LAND DISPOSAL RESTRICTIONS

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335-14-9-APPENDIX XI	**Metal-Bearing Wastes Prohibited From Dilution in a Combustion Unit According to 40 CFR 268.3(c)**

335-14-9-.00 <u>References Adopted</u>.

The Environmental Protection Agency Regulations 40 CFR Part 268 and Appendices (as published and amended by EPA on November 7, 1986; May 28, 1986; September 6, 1989; June 4, 1987; July 8, 1987; July 19, 1988; August 17, 1988; September 6, 1989; June 1, 1990; January 31, 1991; March 25, 1991; August 18, 1992; May 24, 1993; September 19, 1994; May 11, 1995; September 19, 1995; April 8, 1996; June 28, 1996; January 14, 1997; May 12, 1997; June 17, 1997; July 14, 1997; May 26, 1998; August 6, 1998; September 9, 1998; November 30, 1998; May 11, 1999; July 6, 1999; August 5, 2005; June 1, 1990;

June 13, 1990; January 31, 1991; March 6, 1992; August 18, 1992; February 16, 1993; May 24, 1993; June 20, 1994; September 19, 1994; January 3, 1995; April 8, 1996; June 28, 1996; October 28, 1996; February 19, 1997; May 12, 1997; December 5, 1997; May 4, 1998; May 26, 1998; September 4, 1998; September 24, 1998; November 30, 1998; May 11, 1999; May 26, 1999; October 20, 1999; March 17, 2000; June 8, 2000; November 8, 2000; December 26, 2000; June 26, 2001; November 20, 2001; May 22, 2002; May 28, 2002; February 11, 2004; November 19, 2004; February 24, 2005; June 14, 2005; August 3, 2005; February 7, 2006; April 4, 2006; July 14, 2006; May 14, 2008; March 18, 2010; December 17, 2010; June 13, 2011; August 22, 2012; November 28, 2016; and December 9, 2019), designated in rules 335-14-9-.01, .02, .03, .04, .05, and Appendices I through XI, are incorporated herein by reference as set forth in 40 CFR, Part 268, except for the exclusions provided in ADEM Administrative Code rule 335-14-9-.01(1).

In the event that any Code of Federal Regulations Rule(s) incorporated herein by reference refers to or cites another Code of Federal Regulations Rule(s), other than 40 CFR 268, such reference to the other Code of Federal Regulations Rule(s) is not incorporated in this ADEM Administrative Code and the ADEM Administrative Code rule specifically addressing said issue or circumstance shall take precedence, be applicable and govern.

The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

Author: Stephen C. Maurer; Steven O. Jenkins; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett: Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11.
History: December 6, 1990.
Amended: January 25, 1992; January 1, 1993; January 5, 1995; April 28, 1995; January 12, 1996; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; March 31, 2005; April 4, 2006; March 31, 2017; April 6, 2018; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-9-.01 Subpart A - General.

(1) 40 CFR § 268.1 Purpose, scope and applicability (as published by EPA on November 7, 1986; June 4, 1987, and as amended on July 19, 1988; August 17, 1988; September 6, 1989; June 1, 1990; May 24, 1993; September 19, 1994; May 11, 1995; April 8, 1996; June 28, 1996; May 12, 1997; July 6, 1999; August 5, 2005; November 28, 2016; and December 9, 2019), excluding the provisions of § 268.1(c)(3).

(2) 40 CFR § 268.2 Definitions applicable in this part (as published by EPA on June 1, 1990, and as amended on January 31, 1991; August 18, 1992; February 16, 1993; May 24, 1993; September 19, 1994; January 3, 1995; April

8, 1996; June 28, 1996; May 26, 1998; November 30, 1998; May 11, 1999; and July 14, 2006).

(3) 40 CFR § 268.3 Dilution prohibited as a substitute for treatment (as published by EPA on April 8, 1996, as amended at June 28, 1996; and May 26, 1998).

(4) 40 CFR § 268.4 Treatment surface impoundment exemption (as published by EPA on November 7, 1986; June 4, 1987, and as amended on July 8, 1987; August 17, 1988; May 12, 1997; May 26, 1998; and July 14, 2006).

(5) 40 CFR § 268.5 Procedures for case-by-case extensions to an effective date (as published by EPA on November 7, 1986; June 4, 1987, and as amended on July 8, 1987; September 6, 1989; June 13, 1990; and August 18, 1992).

(6) 40 CFR § 268.6 Petitions to allow land disposal of a waste prohibited under Subpart C of Part 268(as published by EPA on November 7, 1986; June 4, 1987, and as amended July 8, 1987; August 17, 1988; September 6, 1989; and July 14, 2006).

(7) 40 CFR § 268.7 Testing, tracking, and recordkeeping requirements for generators, reverse distributors, treaters, and disposal facilities (as published by EPA on November 7, 1986, June 4, 1987, November 28, 2016, and February 22, 2019).

(8) § 268.8 [Reserved]

(9) § 268.9 Special rules regarding wastes that exhibit a characteristic (as published by EPA on June 1, 1990, and as amended on January 31, 1991; August 18, 1992; May 24, 1993; September 19, 1994; January 3, 1995; April 8, 1996; May 12, 1997; May 11, 1999; and April 4, 2006).

Author: Stephen C. Maurer; Amy P. Zachry; Lynn T. Roper; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: August 24, 1989. **Amended:** Effective: December 6, 1990; **Amended:** Effective: January 25, 1992; **Amended:** Effective: January 1, 1993; **Amended:** Effective: January 5, 1995; **Amended:** Effective: April 28, 1995; **Amended:** Effective: January 12, 1996; **Amended:** Effective: March 28, 1997; **Amended:** Effective: March 27, 1998; **Amended:** Effective: April 2, 1999; **Amended:** Effective: March 31, 2000; **Amended:** Effective: April 13, 2001; **Amended:** Effective: March 31, 2005; **Amended:** Effective: March 31, 2017; **Amended:** Filed: February 28, 2020; Effective: April 13, 2020; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-9-.02 Subpart B - Schedule for Land Disposal Prohibition and Establishment of Treatment Standards.

(1) 40 CFR § 268.10 [Reserved]

(2) 40 CFR § 268.11 [Reserved]

(3) 40 CFR § 268.12 [Reserved]

(4) 40 CFR § 268.13 Schedule for wastes identified or listed after November 8, 1984 (as published by EPA on May 28, 1986).

(5) 40 CFR § 268.14 Surface Impoundment Exemptions (as published by EPA on August 18, 1992, and as amended July 14, 2006).

Author: Stephen C. Maurer; Amy P. Zachry; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: August 24, 1989.
Amended: December 6, 1990; January 25, 1992; January 5, 1995; March 28, 1997; April 4, 2006, March 31, 2017. April 6, 2018

335-14-9-.03 Subpart C - Prohibitions on Land Disposal.

(1) 40 CFR § 268.20 Waste specific prohibitions – Dyes and/or pigments production wastes (as published by EPA on February 24, 2005).

(2) 40 CFR § 268.21 [Reserved]

(3) 40 CFR § 268.22 [Reserved]

(4) 40 CFR § 268.23 [Reserved]

(5) 40 CFR § 268.24 [Reserved]

(6) 40 CFR § 268.25 [Reserved]

(7) 40 CFR § 268.26 [Reserved]

(8) 40 CFR § 268.27 [Reserved]

(9) 40 CFR § 268.28 [Reserved]

(10) 40 CFR § 268.29 [Reserved]

(11) 40 CFR § 268.30 Waste specific prohibitions - Wood preserving wastes (as published by EPA on May 12, 1997).

(12) 40 CFR § 268.31 Waste specific prohibitions - Dioxin containing wastes (as published by EPA on August 17, 1988).

(13) 40 CFR § 268.32 Waste specific prohibitions - Soil exhibiting the toxicity characteristic for metals and containing PCBs (as published by EPA on December 26, 2000).

(14) 40 CFR § 268.33 Waste specific prohibitions - chlorinated aliphatic wastes (as published by EPA on November 8, 2000).

(15) 40 CFR § 268.34 Waste specific prohibitions - toxicity characteristic metal wastes (as published by EPA on May 26, 1998 and as amended on September 9, 1998).

(16) 40 CFR § 268.35 Waste specific prohibitions - petroleum refining wastes (August 6, 1998).

(17) 40 CFR § 268.36 Waste specific prohibitions - inorganic chemical wastes (as published by EPA on November 20, 2001).

(18) 40 CFR § 268.37 Waste specific prohibitions - Ignitable and corrosive characteristic wastes whose treatment standards were vacated (as published by EPA on May 24, 1993).

(19) 40 CFR § 268.38 Waste specific prohibitions - Newly identified organic toxicity characteristic wastes and newly listed coke by-product and chlorotoluene production wastes (as published by EPA on September 19, 1995).

(20) 40 CFR § 268.39 Waste specific prohibitions - Spent aluminum potliners; reactive; and carbamate wastes (as published by EPA on April 8, 1996, and as amended on June 28, 1996; January 14, 1997; June 17, 1997; July 14, 1997; and September 24, 1998.

Author: Stephen C. Maurer; Steven O. Jenkins; Amy P. Zachry; Lynn T. Roper; Bradley N. Curvin; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: August 24, 1989.
Amended: December 21, 1989; December 6, 1990; January 25, 1992; January 1, 1993; January 5, 1995; April 28, 1995; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; March 31, 2005; April 4, 2006; March 31, 2017.

335-14-9-.04 Subpart D - Treatment Standards.

(1) 40 CFR § 268.40 Applicability of treatment standards (as published by EPA on September 19, 1994).

(2) 40 CFR § 268.41 Treatment standards expressed as concentrations in waste extract (as published by EPA on September 19, 1994).

(3) 40 CFR § 268.42 Treatment standards expressed as specified technologies (as published by EPA on November 7, 1986, and as amended on July 8, 1987; June 1, 1990; January 31, 1991; March 6, 1992; August 18, 1992; May 24, 1993; June 20, 1994; September 19, 1994; January 3, 1995; April 8, 1996; May 12, 1997; May 26, 1998; July 14, 2006; and May 14, 2008).

(4) 40 CFR § 268.43 Treatment standards expressed as waste concentrations (as published by EPA on September 19, 1994).

(5) 40 CFR § 268.44 Variance from a treatment standard (as published by EPA on November 7, 1986, and as amended on June 4, 1987; August 17, 1988; September 6, 1989; March 25, 1991; October 28, 1996; May 12, 1997; December 5, 1997; May 26, 1998; 64 May 26, 1999; June 26, 2001; May 22, 2002; May 28, 2002; February 11, 2004; November 19, 2004; June 14, 2005; August 3, 2005; February 7, 2006; July 14, 2006; May 14, 2008; and August 22, 2012).

(6) 40 CFR § 268.45 Treatment standards for hazardous debris (as published by EPA on August 18, 1992 and as amended on September 19, 1994; May 26, 1998; and July 14, 2006).

(7) 40 CFR § 268.46 Alternative treatment standards based on HTMR (as published by EPA on September 19, 1994).

(8) 40 CFR § 268.48 Universal treatment standards (as published by EPA on September19, 1994, and as amended on January 3, 1995; April 8, 1996; June 28, 1996; February 19, 1997; May 4, 1998; May 26, 1998; September 4, 1998; May 11, 1999; March 17, 2000; June 14, 2005; February 24, 2005; July 14, 2006; March 18, 2010; and June 13, 2011).

(9) 40 CFR § 268.49 Alternative LDR Treatment standards for contaminated soil (as published by EPA on May 26, 1998, and as amended on May 11, 1999; October 20, 1999; December 26, 2000; and July 14, 2006).

Author: Stephen C. Maurer; Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: August 24, 1989.
Amended: December 6, 1990; January 25, 1992; January 1, 1993; January 5, 1995; April 28, 1995; January 12, 1996; March 28, 1997; March 27, 1998; April 2, 1999; March 31, 2000; April 13, 2001; March 15, 2002; April 17, 2003; March 31, 2017.

335-14-9-.05 Subpart E - Prohibitions on Storage.

(1) § 268.50 Prohibitions on storage of restricted wastes (as published by EPA on November 7, 1986; June 4, 1987, and as amended on July 8, 1987; September 6, 1989; August 18, 1992; November 30, 1998; July 14, 2006; and November 28, 2016).

Author: Stephen C. Maurer; Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: August 24, 1989.
Amended: December 6, 1990; January 25, 1992; January 5, 1995; March 31, 2000; March 31, 2017; April 6, 2018

335-14-9-APPENDIX I [Reserved]

335-14-9-APPENDIX II [Reserved]

335-14-9-APPENDIX III List of Halogenated Organic Compounds Regulated Under § 268.32.

(as published by EPA on December 26, 2000)

Author: Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-10, 22-30-11, 22-30-16.
History: March 15, 2002.
Amended: April 17, 2003; March 31, 2017.

335-14-9-APPENDIX IV Wastes Excluded from Lab Packs Under the Alternative Treatment Standards of § 268.42(c).

(as published by EPA on September 19, 1994)

Author: Stephen C. Maurer; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: December 6, 1990.
Amended: January 25, 1992; April 28, 1995; March 26, 2013; March 31, 2017.

335-14-9-APPENDIX V [Reserved]

335-14-9-APPENDIX VI Recommended Technologies to Achieve Deactivation of Characteristics in § 268.42.

(as published by EPA on June 1, 1990 and as amended on May 12, 1997)

Author: Stephen C. Maurer; Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: December 6, 1990.
Amended: January 25, 1992; March 27, 1998; March 26, 2013; March 31, 2017.

335-14-9-APPENDIX VII LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes.

(as published by EPA on May 12, 1997 and as amended on May 26, 1998; June 8, 2000; July 14, 2006; and December 17, 2010)

Author: Stephen C. Maurer; Amy P. Zachry; Lynn T. Roper; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: December 6, 1990.
Amended: January 25, 1992; March 27, 1998; April 2, 1999; April 13, 2001; March 15, 2002; March 31, 2005; March 31, 2017.

335-14-9-APPENDIX VIII LDR Effective Dates of Injected Prohibited Hazardous Wastes.

(as published by EPA on May 12, 1997 and as amended on May 26, 1998 and July 14, 2006)

Author: Stephen C. Maurer; Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama, §§ 22-30-4, 22-30-6, 22-30-11.
History: December 6, 1990.
Amended: January 25, 1992; March 27, 1998; April 2, 1999; March 31, 2017.

335-14-9-APPENDIX IX Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (SW-846, Method 1310).

Note: The EP (Method 1310B) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 335-14-1-.01(2).

Author: Stephen C. Maurer; Lynn T. Roper; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: January 25, 1992.
Amended: March 31, 2005; March 31, 2017

335-14-9-APPENDIX X [Reserved].

335-14-9-APPENDIX XI Metal-Bearing Wastes Prohibited From Dilution in a Combustion Unit According to 40 CFR 268.3(c).

(as published by EPA on April 8, 1996)

Note: A combustion unit is defined as any thermal technology subject to 40 CFR 264, subpart O; 40 CFR 265, subpart O; and/or 40 CFR 266, subpart H.

Author: Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-4, 22-30-6, 22-30-11.
History: March 28, 1997.
Amended: March 31, 2018

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-11
STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

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335-14-11-.01 General.

(1) Scope.

(a) 335-14-11 establishes requirements for managing the following:

1. Batteries as described in 335-14-11-.01(2);

2. Pesticides as described in 335-14-11-.01(3);

3. Mercury-containing equipment as described in 335-14-11-.01(4);

4. Lamps as described in 335-14-11-.01(5); and

5 Aerosol cans as described in 335-14-11-.01(6).

(b) 335-14-11 provides an alternative set of management standards in lieu of regulation under 335-14-1 through 335-14-9.

(2) Applicability—batteries.

(a) Batteries covered under 335-14-11.

1. The requirements of 335-14-11 apply to persons managing batteries, as described in 335-14-1-.02, except those listed in 335-14-11-.01(2)(b).

2. Spent lead-acid batteries which are not managed under 335-14-7-.07 are subject to management under 335-14-11.

(b) Batteries not covered under 335-14-11. The requirements of 335-14-11 do not apply to persons managing the following batteries:

1. Spent lead-acid batteries that are managed under 335-14-7-.07.

2. Batteries, as described in 335-14-1-.02, that are not yet wastes under 335-14-2, including those that do not meet the criteria for waste generation in 335-14-11-.01(2)(c).

3. Batteries, as described in 335-14-1-.02, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in 335-14-2-.03.

(c) Generation of waste batteries.

1. A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).

2. An unused battery becomes a waste on the date the handler decides to discard it.

(3) Applicability—pesticides.

(a) Pesticides covered under 335-14-11. The requirements of 335-14-11 apply to persons managing pesticides, as described in 335-14-1-.02, meeting the following conditions, except those listed in 335-14-11-.01(3)(b):

1. Recalled pesticides that are:

(i) Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or

(ii) Stocks of a suspended or cancelled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

2. Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

(b) Pesticides not covered under 335-14-11. The requirements of 335-14-11 do not apply to persons managing the following pesticides:

1. Recalled pesticides described in 335-14-11-.01(3)(a)1., and unused pesticide products described in 335-14-11-.01(3)(a)2., that are managed by farmers in compliance with 335-14-3-.07(1). [335-14-3-.07(1) addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with 335-14-2-.01(7)(b)3.];

2. Pesticides not meeting the conditions set forth in 335-14-11-.01(3)(a). These pesticides must be managed in compliance with the hazardous waste regulations in 335-14-1 through 335-14-9, except that aerosol cans as defined in 332-14-1-.02 that contain pesticides may be managed as aerosol can universal waste under 335-14-11-.02(4)(e) or 335-14-11-.03(4)(e);

3. Pesticides that are not wastes under 335-14-2, including those that do not meet the criteria for waste generation in 335-14-11-.01(3)(c) or those that are not wastes as described in 335-14-11-.01(3)(d); and

4. Pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in 335-14-2-.04 or if it exhibits one or more of the characteristics identified in 335-14-2-.03.

(c) When a pesticide becomes a waste.

1. A recalled pesticide described in 335-14-11-.01(3)(a)1. becomes a waste on the first date on which both of the following conditions apply:

(i) The generator of the recalled pesticide agrees to participate in the recall; and

(ii) The person conducting the recall decides to discard (e.g., burn the pesticide for energy recovery).

2. An unused pesticide product described in 335-14-11-.01(3)(a)2. becomes a waste on the date the generator decides to discard it.

(d) Pesticides that are not wastes. The following pesticides are not wastes:

1. Recalled pesticides described in 335-14-11-.01(3)(a)1., provided that the person conducting the recall:

(i) Has not made a decision to discard (e.g., burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of "solid waste" under 335-14-2-.01(2); thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including 335-14-11. This pesticide remains subject to the requirements of FIFRA; or

(ii) Has made a decision to use a management option that, under 335-14-2-.01(2), does not cause the pesticide to be a solid waste [i.e., the selected option is use (other than use constituting disposal) or reuse (other than burning for energy recovery), or reclamation]. Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including 335-14-11. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA.

2. Unused pesticide products described in 335-14-11-.01(3)(a)2., if the generator of the unused pesticide product has not decided to

discard (e.g., burn for energy recovery) them. These pesticides remain subject to the requirements of FIFRA.

(4) Applicability — mercury-containing equipment.

(a) Mercury-containing equipment covered under 335-14-11. The requirements of 335-14-11 apply to persons managing mercury-containing equipment, as described in 335-14-1-.02, except those listed in 335-14-11-.01(4)(b).

(b) Mercury-containing equipment not covered under 335-14-11. The requirements of 335-14-11 do not apply to persons managing the following mercury-containing equipment:

1. Mercury-containing equipment that is not yet a waste under 335-14-2. 335-14-11-.01(4)(c) describes when mercury-containing equipment becomes a waste;

2. Mercury-containing equipment that is not a hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in 335-14-2-.03 or is listed in 335-14-2-.04.

3. Equipment and devices from which the mercury-containing components have been removed.

(c) Generation of waste mercury-containing equipment.

1. Used mercury-containing equipment becomes a waste on the date it is discarded.

2. Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.

(5) Applicability—lamps.

(a) Lamps covered under 335-14-11. The requirements of 335-14-11 apply to persons managing lamps, as described in 335-14-1-.02, except those listed in 335-14-11-.01(5)(b).

(b) Lamps not covered under 335-14-11. The requirements of 335-14-11 do not apply to persons managing the following lamps:

1. Lamps that are not yet wastes under 335-14-2. 335-14-11-.01(5)(c) describes when lamps become wastes.

2. Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in 335-14-2-.03.

3. Lamps that are broken, crushed, or otherwise no longer intact are not to be handled as universal waste.

(c) Generation of waste lamps.

1. A used lamp becomes a waste on the date it is discarded (e.g., sent for reclamation).

2. An unused lamp becomes a waste on the date the handler decides to discard it.

(6) Applicability - aerosol cans

(a) Aerosol cans covered under 335-14-11. The requirements of 335-14-11 apply to persons managing aerosol cans, as described in 335-14-1-.02, except those listed in 335-14-11-.01(6)(b).

(b) Aerosol cans not covered under 335-14-11. The requirements of 335-14-11 do not apply to persons managing the following types of aerosol cans:

1. Aerosol cans that are not yet waste under 335-14-2. 335-14-11-.01(6)(c) describes when an aerosol can becomes a waste;

2. Aerosol cans that are not hazardous waste. An aerosol can is a hazardous waste if the aerosol can exhibits one or more of the characteristics identified in 335-14-2-.03 or the aerosol can contains a substance that is listed in 335-14-2-.04; and

3. Aerosol cans that meet the standard for empty containers under 335-14-2-.01(7).

(c) Generation of waste aerosol cans.

1. A used aerosol can becomes a waste on the date it is discarded.

2. An unused aerosol can becomes a waste on the date the handler decides to discard it.

(7) [Reserved]

(8) Applicability—household and very small quantity generator waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of 335-14-11:

1. Household wastes that are exempt under 335-14-2-.01(4)(b)1. and are also of the same type as the universal wastes defined at 335-14-1-.02; and/or

2. Very small quantity generator wastes that are exempt under 335-14-3-.01(4) and are also of the same type as the universal wastes defined at 335-14-1-.02.

(b) Persons who commingle the wastes described in 335-14-11-.01(8)(a)1. and (a)2. together with universal waste regulated under 335-14-11 must manage the commingled waste under the requirements of 335-14-11.

(9) [Reserved]

Author: Amy P. Zachry; Michael B. Jones; C. Edwin Johnston; Lynn T. Roper; Bradley N. Curvin; Theresa A. Maines; Heather M. Jones; Vernon H. Crockett; Sonja B. Favors; Brent A. Watson; Jonah L. Harris.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15, and 22-30-16.
History: January 12, 1996.
Amended: March 28, 1997; March 27, 1998; March 31, 2000; April 13, 2001; March 31, 2005; April 4, 2006; April 3, 2007; May 27, 2008; March 31, 2017; April 6, 2018; **Amended**: Filed: December 31, 2020; Effective: February 15, 2021.

335-14-11-.02 Standards for Small Quantity Handlers of Universal Waste.

(1) Applicability. 335-14-11-.02 applies to small quantity handlers of universal waste [as defined in rule 335-14-1-.02].

(2) Prohibitions. A small quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 335-14-11-.02(8); or by managing specific wastes as provided in 335-14-11-.02(4) or 335-14-8-.01(1)(c)2.(x).

(3) Notification. A small quantity handler of universal waste is not required to notify the Department of universal waste handling activities.

(4) Waste management.

(a) Universal waste batteries. A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents

of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

2. A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

3. A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in rule 335-14-2-.03.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 335-14-3.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama, or local solid waste regulations.

(b) Universal waste pesticides. A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

1. A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

2. A container that does not meet the requirements of 335-14-11-.02(4)(b)1., provided that the unacceptable container is overpacked in a container that does meet the requirements of 335-14-11-.02(4)(b)1.; or

3. A tank that meets the requirements of rule 335-14-6-.10, except for 335-14-6-.10(8)(e), (11), and (12); or

4. A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Universal waste mercury-containing equipment. A small quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. A small quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

2. A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that meets all applicable requirements of 335-14-1 through 335-14-9;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets all applicable requirements of 335-14-1 through 335-14-9;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

3. A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)2. of this section;

4. (i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in rule 335-14-2-.03:

(I) Mercury or clean-up residues resulting from spills or leaks; and/or

(II) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 335-14-3.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama or local solid waste regulations.

(d) Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage,

spillage, or damage that could cause leakage under reasonably foreseeable conditions.

2. A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonable foreseeable conditions.

(e) Aerosol cans. A small quantity handler of universal waste must manage universal waste aerosol cans in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

2. Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of 335-14-11-.02(4)(e)4.

3. A small quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) Sorting aerosol cans by type;
(ii) Mixing intact cans in one container; and
(iii) Removing actuators to reduce the risk of accidental release; and

4. A small quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 335-14-3-.01(4), 335-14-3-.01(5), 335-14-3-.01(6), or 335-14-3-.01(7).

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can per 335-14-3-.01(2). Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the hazardous waste and is subject to 335-14-3.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or leak and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

(5) Labeling/marking. A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Battery(ies)", or "Waste Battery(ies)", or "Used Battery(ies)";

(b) A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 335-14-11-.01(3)(a)1. are contained must be labeled or marked clearly with:

1. The label that was on or accompanied the product as sold or distributed; and

2. The words "Universal Waste - Pesticide(s)" or "Waste Pesticide(s)";

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 335-14-11-.01(3)(a)2. are contained must be labeled or marked clearly with:

1. (i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in 335-14-11-.02(5)(c)1.(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR Part 172;

(iii) If using the labels described in 335-14-11-.02(5)(c)1.(i) and (ii) is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a State; and

2. The words "Universal Waste - Pesticide(s)" or "Waste Pesticide(s)".

(d) (i) Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Mercury-Containing Equipment", "Waste Mercury-Containing Equipment", or "Used Mercury-Containing Equipment".

(ii) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste - Mercury Thermostat(s)," "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

(e) Each lamp or a container or package in which the lamps are contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Lamp(s)", or "Waste Lamp(s)", or "Used Lamp(s)".

(f) Universal waste aerosol cans (*i.e.*, each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Aerosol Can(s),” “Waste Aerosol Can(s),” or “Used Aerosol Can(s)”.

(6) <u>Accumulation time limits.</u>

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of 335-14-11-.02(6)(b) are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that

the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

1. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

2. Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

3. Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

4. Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

5. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

6. Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

(7) Employee training. A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

(8) Response to releases.

(a) A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the material resulting from the release, and must manage it in compliance with 335-14-3.

(9) Off-site shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a small quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for

those self-transportation activities and must comply with the transporter requirements of rule 335-14-11-.04 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR Parts 171 through 180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

1. Receive the waste back when notified that the shipment has been rejected, or

2. Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:

1. Send the shipment back to the originating handler, or

2. If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Department will provide instructions for managing the hazardous waste.

(h) If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama, or local solid waste regulations.

(10) Tracking universal waste shipments. A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

(11) Exports. A small quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of 335-14-3-.09

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335-14-11-.03 Standards for Large Quantity Handlers of Universal Waste.

(1) Applicability. 335-14-11-.03 applies to large quantity handlers of universal waste [as defined in rule 335-14-1-.02].

(2) Prohibitions. A large quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 335-14-11-.03(8); or by managing specific wastes as provided in 335-14-11-.03(4) or 335-14-8-.01(1)(c)2.(x).

(3) Notification.

(a) 1. Except as provided in 335-14-11-.03(3)(a)2. and 3., a large quantity handler of universal waste must have sent written notification of universal waste management to the Department, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

2. A large quantity handler of universal waste who has already notified the Department of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under 335-14-11-.03(3).

3. A large quantity handler of universal waste who manages recalled universal waste pesticides as described in 335-14-11-.01(3)(a)1. and who has sent notification to EPA as required by 40 CFR Part 165 is not required to notify for those recalled universal waste pesticides under 335-14-11-.03(3).

(b) This notification must include:

1. The universal waste handler's name and mailing address;

2. The name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;

3. The address or physical location of the universal waste management activities;

4. A list of all of the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing equipment, lamps, and aerosol cans); and

5. A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time and the types of universal waste (e.g., batteries, pesticides, mercury-containing equipment, lamps) the handler is accumulating above this quantity.

(4) Waste management.

(a) Universal waste batteries. A large quantity handler of universal waste must manage universal waste batteries in a way that prevents release of any universal waste or component of a universal waste to the environment, as follows:

1. A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

2. A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

3. A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in rule 335-14-2-.03.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to 335-14-3.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama, or local solid waste regulations.

(b) Universal waste pesticides. A large quantity handler of universal waste must manage universal waste pesticides in a way that prevents release of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

1. A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

2. A container that does not meet the requirements of 335-14-11-.03(4)(b)1., provided that the unacceptable container is overpacked in a container that does meet the requirements of 335-14-11-.03(4)(b)1.; or

3. A tank that meets the requirements of rule 335-14-6-.10, except for 335-14-6-.10(8)(e), (11), and (12); or

4. A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Universal waste mercury-containing equipment. A large quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. A large quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with

non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

2. A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that meets all applicable requirements of 335-14-1 through 335-14-9;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets all applicable requirements of 335-14-1 through 335-14-9;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation.

3. A large quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)2. of this section; and

4. (i) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in rule 335-14-2-.03:

(I) Mercury or clean-up residues resulting from spills or leaks; and/or

(II) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 335-14-3.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama or local solid waste regulations.

(d) Universal Waste Lamps. A large quantity handler of universal waste must manage lamps in a way that prevents release of any universal waste or component of a universal waste to the environment, as follows:

1. A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers must remain closed and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

2. A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(e) Aerosol cans. A large quantity handler of universal waste must manage universal waste aerosol cans in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

1. Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

2. Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of 335-14-11-.03(4)(e)4.

3. A large quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) Sorting aerosol cans by type;

(ii) Mixing intact cans in one container; and

(iii) Removing actuators to reduce the risk of accidental release,; and

4. A large quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 335-14-3-.01(4), 335-14-3-.01(5), 335-14-3-.01(6), or 335-14-3-.01(7).

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can per 335-14-3-.01(2). Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the hazardous waste and is subject to 335-14-3.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or leak and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

(5) Labeling/marking. A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste Battery(ies)", or "Waste Battery(ies)", or "Used Battery(ies)";

(b) A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in 335-14-11-.01(3)(a)1. are contained must be labeled or marked clearly with:

1. The label that was on or accompanied the product as sold or distributed; and

2. The words "Universal Waste Pesticide(s)" or "Waste Pesticide(s)";

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in 335-14-11-.01(3)(a)2. are contained must be labeled or marked clearly with:

1. (i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in 335-14-11-.03(5)(c)1.(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR Part 172;

(iii) If using the labels described in 335-14-11-.03(5)(c)1.(i) and (ii) is not feasible, another label prescribed or designated by the pesticide collection program; and

2. The words "Universal Waste Pesticide(s)" or "Waste Pesticide(s)".

(d) 1. Universal waste mercury-containing equipment (i.e., each device), or a container in which the equipment is contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste-Mercury Containing Equipment", "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment."

2. A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste-Mercury Thermostat(s)," "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

(e) Each lamp or a container or package in which the lamps are contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste Lamp(s)", or "Waste Lamp(s)", or "Used Lamp(s)".

(f) Universal waste aerosol cans (*i.e.*, each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Aerosol Can(s)”, “Waste Aerosol Can(s)”, or “Used Aerosol Can(s)”.

(6) <u>Accumulation time limits.</u>

(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of 335-14-11-.03(6)(b) are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

1. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

2. Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

3. Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;

4. Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

5. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

6. Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

(7) Employee training. A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

(8) Response to releases.

(a) A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 335-14-1 through 335-14-9. The handler is considered the generator of the material resulting from the release, and is subject to 335-14-3.

(9) Off-site shipments.

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of 335-14-11-.04 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

1. Receive the waste back when notified that the shipment has been rejected, or

2. Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:

1. Send the shipment back to the originating handler, or

2. If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Department will provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, State of Alabama, or local solid waste regulations.

(10) Tracking universal waste shipments.

(a) Receipt of shipments. A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received must include the following information:

1. The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;

2. The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);

3. The date of receipt of the shipment of universal waste.

(b) Shipments off-site. A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste sent must include the following information:

1. The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;

2. The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats);

3. The date the shipment of universal waste left the facility.

(c) Record retention.

1. A large quantity handler of universal waste must retain the records described in 335-14-11-.03(10)(a) for at least three years from the date of receipt of a shipment of universal waste.

2. A large quantity handler of universal waste must retain the records described in 335-14-11-.03(10)(b) for at least three years from the date a shipment of universal waste left the facility.

(11) Exports. A large quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of 335-14-3-.09

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Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15, and 22-30-16.
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335-14-11-.04 Standards for Universal Waste Transporters.

(1) Applicability. 335-14-11-.04 applies to universal waste transporters (as defined in 335-14-1-.02).

(2) Prohibitions. A universal waste transporter is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in 335-14-11-.04(5).

(3) Waste management.

(a) A universal waste transporter must comply with all applicable U.S. Department of Transportation regulations in 49 CFR Part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 335-14-3. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under 335-14-3, they may not be described by the DOT proper shipping name "hazardous waste, (l) or (s), n.o.s.", nor may the hazardous material's proper shipping name be modified by adding the word "waste".

(4) Storage time limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and must comply with the applicable requirements of 335-14-11-.02 or 335-14-11-.03 while storing the universal waste.

(5) Response to releases.

(a) A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of 335-14-1 through 335-14-9. If the waste is determined to be a hazardous waste, the transporter is subject to 335-14-3.

(6) Off-site shipments.

(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(b) If the universal waste being shipped off-site meets the Department of Transportation's definition of hazardous materials under 49 CFR

171.8, the shipment must be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR Part 172.

(7) Exports. A universal waste transporter transporting a shipment of universal waste to a foreign destination is subject to the requirements of 335-14-3-.09

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Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15, and 22-30-16.
History: January 12, 1996.
Amended: March 28, 1997; March 27, 1998; April 13, 2001; March 31, 2005; April 4, 2006; April 6, 2018.

335-14-11-.05 Standards for Destination Facilities.

(1) Applicability.

(a) The owner or operator of a destination facility (as defined in 335 14-1-.02) is subject to all applicable requirements of 335-14-5 through 335-14-9 and the notification requirement under Section 3010 of RCRA:

(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with 335-14-2-.01(6)(c)2.

(2) Off-site shipments.

(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.

(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:

1. Send the shipment back to the original shipper, or

2. If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(c) If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility must immediately notify the appropriate regional EPA office and this Department of the illegal shipment, and provide the

name, address, and phone number of the shipper. The Department will provide instructions for managing the hazardous waste.

(d) If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or State of Alabama solid waste regulations.

(3) Tracking universal waste shipments.

(a) The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received must include the following information:

1. The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

2. The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats, lamps);

3. The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility must retain the records described in 335-14-11-.05(3)(a) for at least three years from the date of receipt of a shipment of universal waste.

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Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22 30 15, and 22-30-16.
History: January 12, 1996.
Amended: March 28, 1997; March 27, 1998; April 13, 2001; March 15, 2002; March 31, 2005; April 4, 2006, April 6, 2018.

335-14-11-.06 Import Requirements.

(1) Imports. Persons managing universal waste that is imported from a foreign country into the United States are subject to the requirements of 335-14-3-.09 and the applicable requirements of 335-14-11, immediately after the waste enters the United States, as indicated in 335-14-11-.06(1)(a) through (c):

(a) A universal waste transporter is subject to the universal waste transporter requirements of 335-14-11-.04.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of rules 335-14-11-.02 and 335-14-11-.03, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of 335-14-11-.05.

Author: Amy P. Zachry; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15, and 22-30-16.
History: January 12, 1996.
Amended: March 28, 1997; April 13, 2001; April 6, 2018.

335-14-11-.07 Petitions to Include Other Wastes Under Chapter 335-14-11.

(1) General.

(a) Except as provided in 335-14-11-.07(1)(d), any person seeking to add a hazardous waste or a category of hazardous waste to 335-14-11 may petition for a regulatory amendment under 335-14-11-.07 and 335-14-1-.03(3).

(b) To be successful, the petitioner must demonstrate to the satisfaction of the Director that regulation under the universal waste regulations of 335-14-11 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by 335-14-1-.03(3)(b). The petition should also address as many of the factors listed in 335-14-11-.07(2) as are appropriate for the waste or waste category addressed in the petition.

(c) The Director will evaluate petitions using the factors listed in 335-14-11-.07(2). The Director will grant or deny a petition using the factors listed in 335-14-11-.07(2). The decision will be based on the weight of evidence showing that regulation under Chapter 335-14-11 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

(d) Hazardous waste pharmaceuticals are regulated by 335-14-7-.16 and may not be added as a category of hazardous waste for management under this part.

(2) Factors for petitions to include other wastes under Chapter 335-14-11.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in rule 335-14-2-.04, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in rule 335-14-2-.03. [When a characteristic waste is added to the universal waste regulations of Chapter 335-14-11 by using a generic name to identify the

waste category (e.g., batteries), the definition of universal waste in rule 335-14-1-.02 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries).] Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of Chapter 335-14-11;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities);

(c) The waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to rules 335-14-11-.02(4), 335-14-11-.03(4), and 335-14-11-.04(3); and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under Chapter 335-14-11 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems (e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with Subtitle C of RCRA.

(g) Regulation of the waste or category of waste under Chapter 335-14-11 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

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Statutory Authority: Code of Alabama 1975, §§ 22-30-11, 22-30-14, 22-30-15, and 22-30-16.
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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LAND DIVISION - HAZARDOUS WASTE PROGRAM

CHAPTER 335-14-17
STANDARDS FOR THE MANAGEMENT OF USED OIL

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335-14-17-.01 [Reserved]

335-14-17-.02 <u>Applicability</u>.

(1) <u>Applicability</u>. 335-14-17-.02(1) identifies those materials which are subject to regulation as used oil under 335-14-17. 335-14-17-.02(1)also identifies some materials that are not subject to regulation as used oil under 335-14-17, and indicates whether these materials may be subject to regulation as hazardous waste under Chapters 335-14-1 through 335-14-9.

(a) Used oil. The Department presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in rule 335-14-17-.02(2), the regulations of 335-14-17 apply to used oil, and to materials identified in 335-14-17-.02(1) as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in rule 335-14-2-.03.

(b) Mixtures of used oil and hazardous waste:

1. Listed hazardous waste.

(i) Mixtures of used oil and hazardous waste that is listed in rule 335-14-2-.04 are subject to regulation as hazardous waste under Chapters 335-14-1 through 335-14-9, rather than as used oil under 335-14-17.

(ii) Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has

been mixed with halogenated hazardous waste listed in rule 335-14-2-.04. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste [for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 335-14-2-Appendix VIII].

(I) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in rule 335-14-17-.03(6)(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oil/fluids are recycled in any other manner, or disposed.

(II) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

2. Characteristic hazardous waste. Mixtures of used oil and hazardous waste that solely exhibit one or more of the hazardous waste characteristics identified in rule 335-14-2-.03 and mixtures of used oil and hazardous waste that are listed in rule 335-14-2-.04 solely because they exhibit one or more of the characteristics of hazardous waste identified in rule 335-14-2-.03 are subject to:

(i) Except as provided in 335-14-17-.02(1)(b)2.(iii), regulation as hazardous waste under Chapters 335-14-1 through 335-14-9 rather than as used oil under 335-14-17, if the resultant mixture exhibits any characteristics of hazardous waste identified in rule 335-14-2-.03; or

(ii) Except as provided in 335-14-17-.02(1)(b)2.(iii), regulation as used oil under 335-14-17, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under rule 335-14-2-.03. Mixing a characteristic hazardous waste with used oil constitutes treatment if the characteristic waste is rendered nonhazardous, except as provided in 335-14-17-.02(1)(b)2.(iii), and requires that the owner/operator comply with the applicable standards and permit requirements set forth in Chapters 335-14-1 through 335-14-9 before any mixing occurs.

(iii) Regulation as used oil under 335-14-17, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under rule 335-14-2-.03(2).

3. Very small quantity generator hazardous waste. Mixtures of used oil and very small quantity generator hazardous waste regulated under rule 335-14-3-.01(4) are subject to regulation as used oil under 335-14-17.

(c) Materials containing or otherwise contaminated with used oil.

1. Except as provided in 335-14-17-.02(1)(c)2., materials containing or otherwise contaminated with used oil from which the used oil has been

properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

(i) Are not regulated as used oil and thus not subject to 335-14-17; and

(ii) If applicable, are subject to the hazardous waste regulations of Chapters 335-14-1 through 335-14-9.

2. Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under 335-14-17.

3. Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under 335-14-17.

[**Note regarding used oil filters:** In order to demonstrate that free-flowing oil has been properly drained or removed from his used oil filters in accordance with rule 335-14-17-.02(1)(c)1., a generator must gravity hot-drain his used oil filters using one of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) Hot-draining and crushing;

(iii) Dismantling and hot-draining;

(iv) Any other equivalent hot-draining method which removes the free-flowing used oil as approved by the Department.]

(d) Mixtures of used oil with products.

1. Except as provided in 335-14-17-.02(1)(d)2., mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under 335-14-17.

2. Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to 335-14-17 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of rule 335-14-17-.03.

(e) Materials derived from used oil.

1. Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in manner constituting disposal (e.g., re-refined lubricants) are:

(i) Not used oil and thus are not subject to 335-14-17, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of Chapters 335-14-1 through 335-14-9 as provided in 335-14-2.

2. Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under 335-14-17.

3. Except as provided in 335-14-17-.02(1)(e)4., materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(i) Not used oil and thus are not subject to 335-14-17, and

(ii) Are solid wastes and are therefore subject to the Division 335-13 - Solid Waste regulations. If the materials are listed or identified as hazardous wastes, then they are subject to the applicable hazardous waste regulations found in Chapters 335-14-1 through 335-14-9.

4. Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to 335-14-17.

(f) Wastewater. Wastewater, the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil are not subject to 335-14-17. For purposes of 335-14-17-.02(1)(f), "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) Used oil introduced into crude oil pipelines or a petroleum refining facility.

1. Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from 335-14-17. The used oil is subject to 335-14-17 prior to the mixing of used oil with crude oil or natural gas liquids.

2. Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from 335-14-17.

3. Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from 335-14-17 provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to 335-14-17.

4. Except as provided in 335-14-17-.02(1)(g)5., used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from 335-14-17 only if the used oil meets the specification of rule 335-14-17-.02(2). Prior to insertion into the petroleum refining facility process, the used oil is subject to 335-14-17.

5. Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from 335-14-17. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the wastewater treatment system).

6. Used oil tank bottoms from stock used oil tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from 335-14-17.

(h) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to 335-14-17 until it is transported ashore.

(i) Used oil containing PCBs. Used oil containing PCBs (as defined at 40 CFR 761.3) at any concentration less than 50 ppm is subject to the requirements of this chapter unless, because of dilution, it is regulated under 40 CFR Part 761 as a used oil containing PCBs at 50 ppm or greater. PCB-containing used oil subject to the requirements of this Chapter may also be subject to the prohibitions and requirements found at 40 CFR Part 761, including § 761.20(d) and (e). Used oil containing PCBs at concentrations of 50 ppm or greater is not subject to the requirements of this chapter, but is subject to the regulation under 40 CFR Part 761. No person may avoid these provisions by diluting used oil containing PCBs, unless otherwise specifically provided for in this Chapter or Part 761. In addition to the requirements of Chapter 335-14-17, marketers and burners of used oil who market used oil containing any quantifiable level of PCBs are subject to the requirements found at 40 CFR 761.20(e).

(2) Used oil specifications. Used oil burned for energy recovery, and any fuel produced from used oil by used oil processing, blending, or other treatment is subject to regulation under 335-14-17 unless it is shown not to exceed any of the allowable levels of the constituents and properties shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any allowable level and the person making that showing complies with rules 335-14-17-.08(3), (4), and (5)(b), the used oil is no longer subject to 335-14-17.

TABLE 1

USED OIL NOT EXCEEDING ANY ALLOWABLE LEVEL SHOWN BELOW IS NOT SUBJECT TO 335-14-17 WHEN BURNED FOR ENERGY RECOVERY[1]

Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium.	10 ppm maximum.
Lead.	100 ppm maximum.
Flash point	100 °F minimum.
Total halogens.	4,000 ppm maximum.[2]

[1] The allowable levels do not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste [see rule 335-14-17-.02(1)(b)].

[2] Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under rule 335-14-17-.02(1)(b)1.(ii). Such used oil is subject to rule 335-14-7-.08 rather than 335-14-17 when burned for energy recovery, unless the presumption of mixing can be successfully rebutted.

[**Note:** Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).]

(3) Prohibitions.

(a) Surface impoundment prohibition. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under Chapters 335-14-5 or 335-14-6.

(b) Use as a dust suppressant. The use of used oil as a dust suppressant is prohibited.

(c) Burning in particular units. Off-specification used oil fuel may be burned for energy recovery in only the following devices:

1. Industrial furnaces identified in rule 335-14-1-.02.

2. Boilers, as defined in rule 335-14-1-.02, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of rule 335-14-17-.03(5).

3. Hazardous waste incinerators subject to regulation under rules 335-14-5-.15 and 335-14-6-.15.

Author: James T. Shipman; Bradley N. Curvin; Theresa A. Maines; C. Wayne Crockett; Vernon H. Crockett.
Statutory Authority: Code of Alabama 1975, §§ 22-22A-4(n), 22-22A-5(3), 22-22A-5(4), 22-22A-5(20), and 22-30-9(5).
History: January 5, 1995.
Amended: January 12, 1996; March 27, 1998; April 2, 1999; April 13, 2001; March 31, 2005; April 4, 2006; April 3, 2012; April 6, 2018.

335-14-17-.03 Standards for Used Oil Generators.

(1) Applicability.

(a) General. Except as provided in 335-14-17-.03(1)(a)1. through (a)4., 335-14-17-.03 applies to all used oil generators. A used oil generator is any person, by individual generation site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

1. Household 'do-it-yourselfer' used oil generators. Household 'do-it-yourselfer' used oil generators are not subject to regulation under 335-14-17.

2. Vessels. Vessels at sea or at port are not subject to 335-14-17-.03. For purposes of 335-14-17-.03, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are co-generators of the used oil and are both responsible for managing the waste in compliance with 335-14-17-.03 once the used oil is transported ashore. The co-generators may decide among them which party will fulfill the requirements of 335-14-17-.03.

3. Diesel fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to 335-14-17 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of 335-14-17-.03.

4. Farmers. Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to 335-14-17.

5. Identification Numbers. Used oil generators that generate an average of 25 gallons per month (or less) of used oil in a calendar year are not subject to rule 335-14-17-.03(3).

(b) Other applicable provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of 335-14-17 as indicated in 335-14-17-.03(1)(b)1. through (b)5.

1. Used oil generators who transport used oil, except under the self-transport provisions of rule 335-14-17-.03(6)(a) and (b), must also comply with rule 335-14-17-.05.

2. (i) Except as provided in 335-14-17-.03(1)(b)(2.)(ii), used oil generators who process or re-refine used oil must also comply with rule 335-14-17-.06.

(ii) Used oil generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel:

(I) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the used oil generator;

(II) Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to Section 402 or Section 307(b) of the Clean Water Act or other applicable Federal or State of Alabama regulations governing the management or discharge of wastewaters;

(III) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(IV) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to rule 335-14-17-.02(1)(c); or

(V) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to rule 335-14-17-.03(5).

3. Used oil generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of rule 335-14-17-.03(5), must also comply with rule 335-14-17-.07.

4. Used oil generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in rule 335-14-17-.02(2) must also comply with rule 335-14-17-.08.

5. Used oil generators who dispose of used oil must also comply with rule 335-14-17-.09.

(2) Hazardous Waste Mixing.

(a) Mixtures of used oil and hazardous waste must be managed in accordance with rule 335-14-17-.02(1)(b).

(b) The rebuttable presumption for used oil of rule 335-14-17-.02(1)(b)1.(ii) applies to used oil managed by generators. Under the rebuttable presumption for used oil of rule 335-14-17-.02(1)(b)1.(ii), used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units, as described in rules 335-14-17-.02(1)(b)1.(ii)(I) and (II).

(3) Annual Submission of ADEM Form 8700-12, Notification of Regulated Waste Activity and Certifications of Waste Management. Used oil generators that generate an average of greater than 25 gallons of used oil per month in a calendar year must obtain an EPA Identification Number within 30 days of the effective date of 335-14-17-.03 or prior to generating used oil, whichever is later.

(a) Mechanics of notification. A used oil generator must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current used oil activities to the Department annually. The Department must receive the ADEM Form 8700-12, Notification of Regulated Waste Activity, (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

(b) The submitted ADEM Form 8700-12, Notification of Regulated Waste Activity, will not be considered complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(c) Reserved.

(4) Used oil storage. Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR Part 112) in addition to the requirements of 335-14-17-.03. Used oil generators are also subject to the Underground Storage Tank (Division 335-6, Volume 2) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of 335-14-17-.03.

(a) Storage units. Used oil generators shall not store used oil in units other than used oil tanks, containers, or units subject to regulation under Chapters 335-14-5 and 335-14-6.

1. A container holding used oil must always be closed during storage, except when it is necessary to add or remove used oil.

2. The owner/operator must use appropriate controls and/or practices to prevent spills and overflows from used oil tanks. These include, but are not limited to:

(i) Spill prevention controls (e.g., check valves, dry disconnect couplings);

(ii) Overflow controls for continuously fed used oil tanks (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standing used oil tank);

(iii) Freeboard controls in open used oil tanks designed to maintain sufficient freeboard to prevent overfilling or overtopping by wave action, wind action, or precipitation; and/or

(iv) Standard operating procedures requiring employees to check the oil level in a used oil tank by direct observation or remote sensing prior to placing oil in the used oil tank.

(b) Condition of units. Containers and aboveground used oil tanks used to store used oil at used oil generator facilities must be:

1. In good condition (no severe rusting, apparent structural defects or deterioration); and

2. Not leaking (no visible leaks).

(c) Labels. Labels must be legible from a distance of at least 25 feet.

1. Containers and used oil tanks, except underground tanks, used to store used oil at used oil generator locations must be labeled or marked clearly with the words "Used Oil".

2. Fill pipes used to transfer used oil into underground storage tanks (or aboveground used oil tanks when an obstacle such as a wall or barrier is between the fill pipe and the aboveground used oil storage tank) at used oil generator facilities must be labeled or marked clearly with the words "Used Oil".

(d) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the corrective action requirements of Division 335-6, Volume 2 of the ADEM Administrative Code, which has occurred after the effective date of these rules, a used oil generator must perform the following cleanup steps:

1. Stop the release;

2. Contain the released used oil;

3. Clean up and manage properly the released used oil and other materials in accordance with all applicable Division 335-13 and 335-14 requirements; and

4. If necessary, repair or replace any leaking used oil storage containers or used oil tanks prior to returning them to service.

(5) On-site burning in space heaters. Used oil generators may burn used oil in used oil-fired space heaters provided that:

(a) The heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;

(b) The heater is designed to have a maximum capacity of not more than 0.5 million BTU per hour; and

(c) The combustion gases from the heater are vented to the ambient air.

(6) Off-site shipments. Except as provided in 335-14-17-.03(6)(a) through (c), used oil generators must ensure that their used oil is transported only by transporters who have obtained an EPA identification number and an Alabama Used Oil Transport Permit.

(a) Self-transportation of small amounts to approved collection centers. Used oil generators may transport, without an EPA identification number, used oil that is generated at the used oil generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

1. The used oil generator transports the used oil in a vehicle owned by the used oil generator or owned by an employee of the used oil generator;

2. The used oil generator transports no more than 55 gallons of used oil at any time; and

3. The used oil generator transports the used oil to a used oil collection center that has notified the Department in accordance with the procedures described in rule 335-14-17-.04(2)(b).

(b) Self-transportation of small amounts to aggregation points owned by the used oil generator. Used oil generators may transport, without an EPA identification number, used oil that is generated at the used oil generator's site to an aggregation point provided that:

1. The used oil generator transports the used oil in a vehicle owned by the used oil generator or owned by an employee of the used oil generator;

2. The used oil generator transports no more than 55 gallons of used oil at any time; and

3. The used oil generator transports the used oil to an aggregation point that is owned and/or operated by the same used oil generator.

(c) Tolling arrangements. Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the

used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor/re-refiner to the used oil generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling arrangement") must indicate:

1. The type of used oil and the frequency of shipments;

2. That the vehicle used to transport the used oil to the used oil processing/re-refining facility and to deliver recycled used oil back to the used oil generator is owned and operated by the used oil processor/re-refiner; and

3. That reclaimed oil will be returned to the used oil generator.

Author: James T. Shipman; C. Edwin Johnston, McHeartland Sasser Jr.; Bradley N. Curvin; Michael B. Champion; Clethes Stallworth; James K. Burgess.
Statutory Authority: Code of Alabama 1975, §§ 22-22A-4(n), 22-22A-5(3), 22-22A-5(4), 22-22A-5(20), and 22-30-9(5).
History: January 5, 1995.
Amended: April 2, 1999; April 13, 2001; March 15, 2002; April 17, 2003; May 27, 2004; March 31, 2005; April 4, 2006; April 3, 2007; March 30, 2010; April 3, 2012.

335-14-17-.04 Standards for Used Oil Collection Centers and Aggregation Points.

(1) Do-it-yourselfer used oil collection centers.

(a) Applicability. 335-14-17-.04(1) applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers. A DIY used oil collection center is any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers.

(b) DIY used oil collection center requirements. Owners or operators of all DIY used oil collection centers must comply with the used oil generator standards in rule 335-14-17-.03. DIY used oil collection centers are not required to comply with the notification requirements of rule 335-14-17-.03(3) unless the used oil generator produces an average of greater than 25 gallons of used oil per month in a calendar year due to activities other than the acceptance of DIY used oil.

(2) Used oil collection centers.

(a) Applicability. 335-14-17-.04(2) applies to owners or operators of used oil collection centers. A used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from used oil generators regulated under rule 335-14-17-.03 who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of rule 335-14-17-.03(6)(a). Used oil collection centers may also accept used oil from household do-it-yourselfers.

(b) Used oil collection center requirements. Owners or operators of all used oil collection centers must comply with the used oil generator standards in rule 335-14-17-.03.

(3) Used oil aggregation points owned by the used oil generator.

(a) Applicability. 335-14-17-.04(3) applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of rule 335-14-17-.03(6)(b). Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(b) Used oil aggregation point requirements. Owners or operators of all used oil aggregation points must comply with the used oil generator standards in rule 335-14-17-.03.

Author: James T. Shipman; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-22A-4(n), 22-22A-5(3), 22-22A-5(4), 22-22A-5(20), and 22-30-9(5).
History: January 5, 1995.
Amended: April 13, 2001; March 31, 2005.

335-14-17-.05 Standards For Used Oil Transporter and Transfer Facilities.

(1) Applicability.

(a) General. Except as provided in 335-14-17-.05(1)(a)1. through (a)4., 335-14-17-.05 applies to all used oil transporters. Used oil transporters are persons who transport used oil, persons who collect used oil from more than one used oil generator and transport the collected oil, and owners and operators of used oil transfer facilities.

1. 335-14-17-.05 does not apply to on-site transportation.

2. 335-14-17-.05 does not apply to used oil generators who transport shipments of used oil totaling 55 gallons or less from the used oil generator to a used oil collection center as specified in rule 335-14-17-.03(6)(a).

3. 335-14-17-.05 does not apply to used oil generators who transport shipments of used oil totaling 55 gallons or less from the used oil generator to a used oil aggregation point owned or operated by the same used oil generator as specified in rule 335-14-17-.03(6)(b).

4. 335-14-17-.05 does not apply to transportation of used oil generated from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to 335-14-17. Except as provided in 335-14-17-.05(1)(a)1. through (a)3., 335-14-17-.05 does, however, apply to transportation of collected household

do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(b) Imports and exports. Transporters who import used oil from abroad or export used oil outside of the United States are subject to the requirements of 335-14-17-.05 from the time the used oil enters and until the time it exits the United States.

(c) Trucks used to transport hazardous waste. Unless trucks previously used to transport hazardous waste are emptied as described in rule 335-14-2-.01(7) prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the provisions of rule 335-14-17-.02(1)(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) Other applicable provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of 335-14-17 as indicated in 335-14-17-.05(1)(d)1. through (d)5.

1. Transporters who generate used oil must also comply with rule 335-14-17-.03.

2. Transporters who process or re-refine used oil, except as provided in rule 335-14-17-.05(2), must also comply with rule 335-14-17-.06;

3. Transporters who burn off-specification used oil for energy recovery must also comply with rule 335-14-17-.07;

4. Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in rule 335-14-17-.02(2) must also comply with rule 335-14-17-.08; and

5. Transporters who dispose of used oil must also comply with rule 335-14-17-.09.

(2) <u>Restrictions on transporters who are not also processors or re-refiners</u>.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in 335-14-17-.05(2)(b), used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in rule 335-14-17-.06.

(b) Transporters may conduct incidental used oil processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for

production of) used oil derived products unless they also comply with the processor/re-refiner requirements in rule 335-14-17-.06.

(c) Transporters of used oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in rule 335-14-17-.06.

(3) EPA Identification Number and Alabama Used Oil Transport Permit.

(a) A transporter must not transport used oil without having received an EPA Identification Number from the Administrator or the authorized State in which the transporter's base of operations is located. If the transporter's base of operations is located within the State of Alabama, such application shall be submitted to the Department.

(b) A transporter who has not received an EPA Identification Number may obtain one by applying to the Administrator or the authorized State in which the base of operations is located using EPA Form 8700-12 or the authorized State's equivalent.

(c) Reserved.

(d) A non-rail transporter must not transport used oil without having received an Alabama Used Oil Transport Permit in compliance with rules 335-14-8-.09 through 335-14-8-.13.

(e) Annual Submission of ADEM Form 8700-12, Notification of Regulated Waste Activity and Certifications of Waste Management. A used oil transporter whose base of operations is located in the State of Alabama must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current used oil activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

(f) The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(4) Financial Requirements. Any person proposing to transport used oil shall submit, with their application for an Alabama Used Oil Transport Permit, one of the following:

(a) A surety bond in which the applicant is the principal obligor and the Department is the obligee;

1. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of

the U. S. Department of the Treasury or be a corporate surety licensed to do business in the State of Alabama; and

2. The wording of the surety bond must be identical to the following:

SURETY BOND

Date bond executed:	
Effective date:	
Principal:	[legal name, business address and EPA identification number of applicant]
Type of organization:	[insert "individual", "joint venture", "partnership" or "corporation"]
State of incorporation:	
Surety(ies):	[name(s) and business address(es)]
Total penal sum of bond:	$
Surety's bond number:	

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Alabama Department of Environmental Management (hereinafter, "the Department"), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Alabama Hazardous Wastes Management and Minimization Act of 1978, as amended (AHWMMA), to have a permit in order to transport used oil, and

Whereas said Principal is required by Code of Alabama 1975, § 22-30-12(c)(4) to provide financial assurance for compliance with the AHWMMA, the regulations promulgated thereunder, the permit issued to the Principal and any orders issued to the Principal by the Department, and for damages to human health and the environment, including the costs of cleanups caused by spills.

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully comply with the AHWMMA, the regulations promulgated thereunder, the permit issued to the Principal, any order(s) issued to the Principal by the Department, and correct any damages to human health or the environment, including the cleanup of spills as approved by the Department for the term of the permit issued to the Principal and the Surety(ies) gives notice of intent not to renew this Performance Bond not less than 90 days prior to the expiration of the permit issued to the Principal,

Or, if the Principal shall provide alternate financial assurance as specified in 335-14-17-.05(4)(b) or (c) of the Alabama Department of Environmental Management Administrative Code and obtain the Department's written approval of such assurance within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies) then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Department that the Principal has been found in violation of the AHWMMA, the regulations promulgated there under, the permit issued to the Principal or any order(s) issued to the Principal for activities regulated pursuant to the AHWMMA, the Surety(ies) shall correct the violation, including the cost of any remedial action, and pay any penalties assessed by the Department against the Principal or shall within 15 days after notification by the Department, pay to the Department the amount designated as the total penal sum of the bond or such amount as remains if previous violations have been assessed against this bond.

The Surety(ies) hereby waive(s) notification of amendments to permits, applicable laws and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in rule 335-14-17-.05(4)(a) of the Alabama Department of Environmental Management Administrative Code as such rule was constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)] _____

_____

[Name(s)] _____

_____

(Title(s)] _____

_____

[Corporate seal]

CORPORATE SURETY(IES)

[Name and address] _____

_____

_____

_____

State of incorporation: _____

Liability limit: $ _____

[Signature(s)] _____

_____

[Name(s) and title(s)] _____

_____

[Corporate seal]

[For every co-surety provide the above required information, signature(s) and corporate seal.]

Bond premium: $ _____

3. The amount of the surety bond for environmental restoration shall be established as follows:

(i) Transporters proposing to transport used oil shall be required to provide a surety bond in an amount equal to $5,000 per vehicle transporting such wastes to a maximum of $100,000 or proof of net worth as provided in 335-14-17-.05(4)(b);

(ii) If the assurance surety bond is drawn upon, the Department may require additional assurance from the permittee and if the permittee fails to provide the assurance as required, the Department may terminate the permit as set out in 335-14-8-.11(2).

(b) Evidence satisfactory to the Department that the person proposing to transport used oil has a net worth equal to ten times the value of the proposed surety bond. Such evidence shall be submitted in the form of a letter from the Chief Financial Officer of the applicant and shall be in a form identical to the following:

DEMONSTRATION OF NET WORTH

Letter From the Chief Financial Officer

(To demonstrate net worth as required by Code of Alabama 1975, § 22-30-12(c)(4) in order to demonstrate financial responsibility for noncompliance with the Alabama Hazardous Wastes Management and Minimization Act of 1978, the regulations promulgated thereunder and any permits or orders issued to the applicant and to demonstrate financial responsibility for damages to human health and the environment, including the costs of cleanups, caused by spills. This demonstration may be used in conjunction with other allowable mechanisms in order to provide the required coverage.)

[Address to the Director, Alabama Department of Environmental Management, 1400 Coliseum Boulevard, Montgomery, Alabama 36110-2059]

I am the chief financial officer of [applicant's name, address and EPA transporter identification number]. This letter is in support of the use of the demonstration of net worth to demonstrate financial responsibility as required by Code of Alabama 1975, § 22-30-12(c)(4) and rule 335-14-17-.05 of the Alabama Department of Environmental Management Administrative Code.

This applicant [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this applicant ends on [month, day]. The figures for the following items marked with an asterisk are derived from a year-end financial statement(s) for the latest completed fiscal year, ended [date], prepared for the applicant by an independent auditor.

Net Worth

1.	Amount of annual aggregate financial responsibility to be demonstrated	$ _____
*2.	Total assets	$ _____
*3.	Total liabilities	$ _____
*4.	Net worth (line 2. minus line 3.)	$ _____
*5.	If less than 90% of assets are located in the U.S. give total U.S. assets	$ _____
6.	Is line 4 at least 10 times line 1.?.....	_____ Yes _____ No

I hereby certify that the wording of this letter is identical to that in rule 335-14-17-.05(4)(b) of the Alabama Department of Environmental Management Administrative Code.

[Signature] _____

[Name] _____

[Title] _____

[Date] _____

(c) Proof of insurance in a minimum amount of $100,000 to cover damages to human health or the environment, exclusive of legal defense costs as defined in 335-14-1-.02. Such insurance may not include a pollution exclusion clause. Proof of insurance must be provided on a Certificate of Insurance form naming the Alabama Department of Environmental Management as the certificate holder and giving at least 30 days written Notice of Cancellation to the certificate holder. Nothing in 335-14-17-.05(4)(c) shall be construed to allow a transporter to operate in violation of the United States Department of Transportation rules and regulations governing financial assurance.

(d) A transporter must demonstrate to the satisfaction of the Department that the financial document submitted with their applications as required in 335-14-17-.05 is in force for the duration of the permit. The Department may request a permitted transporter at any time to demonstrate that financial assurance is in force for the duration of the used oil transporter permit.

(5) Used oil transportation.

(a) Deliveries. A used oil transporter must deliver all used oil received to:

1. Another used oil transporter, provided that the transporter has obtained an EPA identification number;

2. A used oil processing/re-refining facility who has obtained an EPA identification number;

3. An off-specification used oil burner facility who has obtained an EPA identification number; or

4. An on-specification used oil burner facility.

(b) DOT Requirements. Used oil transporters must comply with all applicable requirements of the U.S. Department of Transportation regulations in 49 CFR Parts 171 through 180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR 171 through 180.

(c) Used oil discharges.

1. In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

2. If a discharge of used oil occurs during transportation and the Department or its designee acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health or the environment, the Department or its designee may authorize the removal of the used oil by transporters who do not have EPA identification numbers.

3. An air, rail, highway, or water transporter who has discharged used oil must:

(i) Give notice, if required by 49 CFR 171.15, to the Alabama Emergency Management Agency (800/843-0699, 24 hours a day) and to the National Response Center (800/424-8802 or 202/267-2675, 24 hours a day); and

(ii) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590. A copy of such report shall be provided to the Land Division, Alabama Department of Environmental Management, P. O. Box 301463 (Zip 36130-1463), or hand delivered to 1400 Coliseum Boulevard, Montgomery, AL 36110-2059, not later than 14 days after any such discharge.

4. A water transporter who has discharged used oil must give notice as required by 33 CFR 153.203 and shall give notice to the Alabama Emergency Management Agency (800/843-0699, 24 hours a day) and the National Response Center (800/424-8802 or 202/267-2675, 24 hours a day).

5. A transporter must clean up any discharge of used oil that occurs during transportation or take such action as may be required or approved by the Department or its designee so that the used oil discharge no longer presents a hazard to human health or the environment.

6. In addition to the reporting requirements of 335-14-17-.05(5)(c)3., a transporter must notify the Department of any discharge of greater than 25 gallons of used oil during transportation no later than 24 hours after any such discharge. The notification must include the following:

(i) The transporter's name and EPA identification number;

(ii) The date and time of the incident;

(iii) The location of the incident;

(iv) The type (refer to 335-14-17-.05(10)) and amount of materials released;

(v) A description of the sequence of events that led to the incident and the actions taken at the time it was discovered; and

(vi) A description of the actions that were taken to clean up and mitigate the effects of the release.

(6) Rebuttable presumption for used oil.

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of rule 335-14-17-.02(1)(b)1.(ii), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

1. Testing the used oil; or

2. Obtaining certification of the halogen content of the used oil from the used oil generator in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in rule 335-14-2-.04. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste [for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Chapter 335-14-2].

1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed through a tolling arrangement, as described in rule 335-14-17-.03(6)(c), to reclaim metalworking

oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(7) Used oil storage at transfer facilities. Used oil transfer facilities are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR Part 112) in addition to the requirements of 335-14-17-.05. Used oil transporters are also subject to the Underground Storage Tank (Division 335-6, Volume II) standards for used oil stored in underground used oil tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of 335-14-17-.05.

(a) Applicability. 335-14-17-.05(7) applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under rule 335-14-17-.06.

(b) Maintenance and operation of facility. Used oil transfer facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

(c) Storage units. Owners or operators of used oil transfer facilities may not store used oil in units other than used oil tanks, containers, or units subject to regulation under Chapters 335-14-5 or 335-14-6.

1. A container holding used oil must always be closed during storage, except when it is necessary to add or remove used oil.

2. The owner/operator must use appropriate controls and/or practices to prevent spills and overflows from used oil tanks. These include, but are not limited to:

(i) Spill prevention controls (e.g., check valves, dry disconnect couplings);

(ii) Overflow controls for continuously fed used oil tanks (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standing used oil tank); and/or

(iii) Freeboard controls in open used oil tanks designed to maintain sufficient freeboard to prevent overfilling or overtopping by wave action, wind action, or precipitation.

(iv) Standard operating procedures requiring employees to check the oil level in a used oil tank by direct observation or remote sensing prior to placing oil in the used oil tank.

3. Special requirements for the management of ignitable used oil.

(i) Owner/operator must comply with 335-14-5-.02(8);

(ii) Containers holding ignitable used oil must be located at least 15 meters (50 feet) from the facility's property line.

(iii) The owner/operator of a facility where ignitable used oil is stored in a used oil tank must comply with the requirements for the maintenance of protective distances between the used oil management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code", (1977 or 1981), [incorporated by reference in rule 335-14-1-.02(2)].

(d) A used oil transfer facility must be able to demonstrate the length of time that the used oil has been accumulated from the date it is received. The handler may make this demonstration by:

1. Labeling each used oil container with the earliest date that the used oil container was received;

2. Maintaining an inventory system on-site that identifies the date the used oil being accumulated was received;

3. Maintaining an inventory system on-site that identifies the earliest date that any used oil container in a group of used oil containers was received;

4. Placing the used oil container in a specific accumulation area and identifying the earliest date that any used oil containers in the area were received; or

5. Any other method which clearly demonstrates the length of time that the used oil has been accumulated on-site from the date received.

(e) Condition of units. Containers and aboveground used oil tanks used to store used oil at transfer facilities must be:

1. In good condition (no severe rusting, apparent structural defects or deterioration); and

2. Not leaking (no visible leaks).

(f) Secondary containment for containers. Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dikes, berms, or retaining walls; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The floor must be sloped or the containment system must be otherwise designed, constructed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or otherwise protected from contact with accumulated liquids;

4. The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater;

5. Run-on, and the entrance of precipitation, into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-17-.05(7)(g)4. to contain any run-on or precipitation which might enter the system; and

6. Spilled or leaked used oil and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

(g) Secondary containment for existing aboveground used oil tanks. Existing aboveground used oil tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the used oil tank meet the ground; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(h) Secondary containment for new aboveground used oil tanks. New aboveground used oil tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms, or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(i) Labels. Labels must be legible from a distance of at least 25 feet.

1. Containers and aboveground used oil tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil".

2. Fill pipes used to transfer used oil into underground used oil storage tanks at transfer facilities must be labeled or marked clearly with the words "Used Oil".

(j) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the corrective action requirements of Division 335-6, Volume 2 of the ADEM Administrative Code, which has occurred after the effective date of these rules, the owner/operator of a transfer facility must perform the following cleanup steps:

1. Stop the release;

2. Contain the released used oil;

3. Clean up and manage properly the released used oil and other materials in accordance with all applicable Division 335-13 and 335-14 requirements; and

4. If necessary, repair or replace any leaking used oil storage containers or used oil tanks prior to returning them to service.

(k) Closure.

1. Aboveground used oil tanks. Owners and operators who store used oil in aboveground used oil tanks must comply with the following requirements:

(i) At closure of the used oil tank system, the owner or operator must remove or decontaminate used oil residues in the tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Chapter 335-14-2.

(ii) If the owner or operator cannot demonstrate that all of the soils can be practicably removed or decontaminated as required in 335-14-17-.05(7)(k)1.(i), then the owner or operator must close the used oil tank system and perform post-closure care requirements that apply to hazardous waste landfills under rule 335-14-6-.14(11).

2. Containers. Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oil or residues of used oil must be removed from the site;

(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment systems components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under 335-14-2.

(8) Tracking.

(a) Acceptance. Used oil transporters must keep a record of each used oil shipment accepted for transport. Records for each shipment must include:

1. The name and address of the used oil generator, used oil transporter, or used oil processor/re-refiner who provided the used oil for transport;

2. The EPA identification number (if applicable) of the used oil generator, used oil transporter, or used oil processor/re-refiner who provided the used oil for transport;

3. The quantity of used oil accepted;

4. The date of acceptance; and

5. (i) Except as provided in 335-14-17-.05(8)(a)5.(ii), the signature, dated upon receipt of the used oil, of a representative of the used oil generator, used oil transporter, or used oil processor/re-refiner who provided the used oil for transport.

(ii) Intermediate rail used oil transporters are not required to sign the record of acceptance.

(b) Deliveries. Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, used oil processor/re-refiner, or disposal facility. Records of each delivery must include:

1. The name and address of the receiving facility or used oil transporter;

2. The EPA identification number of the receiving facility or used oil transporter;

3. The quantity of used oil delivered;

4. The date of delivery;

5. (i) Except as provided in 335-14-17-.05(8)(b)5.(ii), the signature, dated upon receipt of the used oil, of a representative of the receiving facility or used oil transporter.

(ii) Intermediate rail used oil transporters are not required to sign the record of delivery.

(c) Exports of used oil. Used oil transporters must maintain the records described in 335-14-17-.05(8)(b)1. through (b)4. for each shipment of used oil exported to any foreign country.

(d) Residues from the Storage or Transport of Used Oil. Used oil transporters must keep a record of each shipment of residues resulting from the storage or transport of used oil that is delivered or offered to another transporter or facility. Records of each shipment must include:

1. The name and address of the receiving facility or transporter;

2. The EPA identification number of the receiving facility or transporter, if applicable;

3. The type (refer to 335-14-17-.05(10)) and quantity of residue delivered or offered;

4. The date of delivery or acceptance;

5. Except as provided in 335-14-17-.05(8)(d), the signature, dated upon receipt of the residue, of a representative of the receiving facility or transporter. (Note: Intermediate rail transporters are not required to sign the record of delivery/acceptance)

(9) Recordkeeping.

(a) Alabama Used Oil Transporter Permit. A transporter of used oil must maintain a copy of the current used oil transporter permit with each vehicle actively transporting used oil.

(b) Contingency Plan. A transporter of used oil must maintain a copy of the contingency plan required by rule 335-14-8-.09(4)(g) with each vehicle actively transporting used oil.

(c) Rebuttable Presumption. Records of analyses conducted or information used to comply with 335-14-17-.05(6)(a), (b), and (c) must be maintained by the used oil transporter for at least 3 years.

(d) Tracking. The records described in 335-14-17-.05(8)(a) through (d) must be maintained for at least 3 years.

(10) Management of residues. Used oil transporters who generate residues from the storage or transport of used oil must manage the residues as specified in rule 335-14-17-.02(1)(e).

(11) Reserved.

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335-14-17-.06 Standards for Used Oil Processors and Re-refiners.

(1) Applicability.

(a) The requirements of 335-14-17-.06(1) apply to owners and operators of facilities that process used oil. Used oil processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Used oil processing includes, but is not limited to: blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining. The requirements of 335-14-17-.06(1) do not apply to:

1. Used oil transporters that conduct incidental used oil processing operations that occur during the normal course of transportation as provided in rule 335-14-17-.05(2); or

2. Burners that conduct incidental used oil processing operations that occur during the normal course of used oil management prior to burning as provided in rule 335-14-17-.07(2)(b)1.

(b) Other applicable provisions. Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of 335-14-17 as indicated in 335-14-17-.06(1)(b)1. through (b)5.

1. Used oil processors/re-refiners who generate used oil must also comply with rule 335-14-17-.03;

2. Used oil processors/re-refiners who transport used oil must also comply with rule 335-14-17-.05;

3. Except as provided in 335-14-17-.06(1)(b)3.(i) and (b)3.(ii), used oil processors/re-refiners who burn off-specification used oil for energy recovery must also comply with rule 335-14-17-.07. Used oil processors/re-refiners burning used oil for energy recovery under the following conditions are not subject to rule 335-14-17-.07:

(i) The used oil is burned in an on-site space heater that meets the requirements of rule 335-14-17-.03(5); or

(ii) The used oil is burned for purposes of used oil processing, which is considering burning incidentally to used oil processing;

4. Used oil processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in rule 335-14-17-.02(2) must also comply with rule 335-14-17-.08; and

5. Used oil processors/re-refiners who dispose of used oil also must comply with rule 335-14-17-.09.

(2) Notification.

(a) Identification numbers. Used oil processors and re-refiners must obtain an EPA Identification Number within 30 days of the effective date of these rules or prior to processing /re-refining used oil, whichever is later.

(b) Mechanics of notification. A used oil processor or re-refiner must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages and fees) reflecting current used oil activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

(c) The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(3) General facility standards.

(a) Preparedness and prevention. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

1. Maintenance and operation of facility. Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

2. Required equipment. All facilities must be equipped with the following, unless none of the hazards posed by used oil handled at the facility could require a particular kind of equipment specified in 335-14-17-.06(3)(a)2.(i) through (iv):

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local law enforcement, fire departments, or ADEM Field Operations Division or local emergency response teams;

(iii) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

(iv) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

3. Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

4. Access to communications or alarm system.

(i) Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in 335-14-17-.06(3)(a)2.

(ii) If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in 335-14-17-.06(3)(a)2.

5. Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

6. Arrangements with local authorities.

(i) The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

(I) Arrangements to familiarize local law enforcement, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(II) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(III) Agreements with ADEM Field Operations Division emergency response teams, emergency response contractors, and equipment suppliers; and

(IV) Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(ii) Where State of Alabama or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(b) Contingency plan and emergency procedures. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

1. Purpose and implementation of contingency plan.

(i) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of used oil which could threaten human health or the environment.

2. Content of contingency plan.

(i) The contingency plan must describe the actions facility personnel must take to comply with 335-14-17-.06(3)(b)1. and 6. in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of 335-14-17.

(iii) The plan must describe arrangements agreed to by local law enforcement, fire departments, hospitals, contractors, and ADEM Field Operations Division and local emergency response teams to coordinate emergency services, pursuant to 335-14-17-.06(3)(a)6.

(iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator [see 335-14-17-.06(3)(b)5.], and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(v) The plan must include a list of all emergency equipment at the facility [such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment], where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires).

3. Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:

(i) Maintained at the facility; and

(ii) Submitted to all local law enforcement, fire departments, hospitals, ADEM Field Operations Division and local emergency response teams that may be called upon to provide emergency services. A record of this submittal should be kept in the operating record of the facility.

4. Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

(i) Applicable regulations are revised;

(ii) The plan fails in an emergency;

(iii) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential fires, explosions, or releases of used oil, or changes the response necessary in an emergency;

(iv) The list of emergency coordinators changes; or

(v) The list of emergency equipment changes.

5. Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristic of used oil handled, the location of all records within the facility, and facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

Guidance: The emergency coordinator's responsibilities are more fully spelled out in 335-14-17-.06(3)(b)6. Applicable responsibilities for the emergency

coordinator vary, depending on factors such as type and variety of used oil handled by the facility, and type and complexity of the facility.

6. Emergency procedures.

(i) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately:

(I) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(II) Notify appropriate State of Alabama or local agencies with designated response roles if their help is needed.

(ii) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analyses.

(iii) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any surface water run-offs contaminated from water or chemical agents used to control fire and heat-induced explosions).

(iv) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(I) If his assessment indicated that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(II) He must immediately notify:

1. Either the government official designated as the on-scene coordinator for the geographical area (in the applicable regional contingency plan under Part 1510 of 40 CFR), or the National Response Center [using their 24-hour toll free number 800/424-8802 or 202/267-2675];

2. The Department [334/271-7700 between 8:00 a.m. and 5:00 p.m., Monday through Friday]; and

3. The Alabama Department of Public Safety [334/242-4378, 24 hours a day].

(III) The report required by 335-14-17-.06(3)b)6.(iv)(II) must include:

1. Name and telephone number of reporter;

2. Name and address of facility;

3. Time and type of incident (e.g., release, fire);

4. Name and quantity of material(s) involved, to the extent known;

5. The extent of injuries, if any; and

6. The possible hazards to human health, or the environment, outside the facility.

(v) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil or hazardous waste at the facility. These measures must include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.

(vi) If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator must provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(I) No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed; and

(II) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(III) The owner or operator must notify the Department and other appropriate State of Alabama and local authorities that the facility is in compliance with 335-14-17-.06(3)(b)6.(viii)(I) and (II) before operations are resumed in the affected area(s) of the facility.

(ix) The owner or operator must note in the operating record the time, date and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Department. The report must include:

(I) Name, address, and telephone number of the owner or operator;

(II) Name, address, and telephone number of the facility;

(III) Date, time, and type of incident (e.g., fire, explosion);

(IV) Name and quantity of material(s) involved;

(V) The extent of injuries, if any;

(VI) An assessment of actual or potential hazards to human health or the environment, where this is applicable;

(VII) Estimated quantity and disposition of recovered material that resulted from the incident.

(4) Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil processing/re-refining facility is not hazardous waste under the rebuttable presumption of rule 335-14-17-.02(1)(b)1.(ii), the owner or operator of a used oil processing/re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

1. Testing the used oil; or

2. Obtaining certification of the halogen content of the used oil from the generator in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in rule 335-14-2-.04. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste [for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 335-14-2-Appendix VIII].

1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oil/fluids. The presumption does apply to metalworking oil/fluids if such oils/fluids are recycled in any other manner, or disposed.

2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(5) Used oil management. Used oil processors/re-refiners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR Part

112) in addition to the requirements of 335-14-17-.06. Used oil processors/ re-refiners are also subject to the Underground Storage Tank (Division 335-6, Volume 2) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of 335-14-17-.06.

(a) Management units. Used oil processors/re-refiners may not store used oil in units other than used oil tanks, containers, or units subject to regulation under Chapters 335-14-5 or 335-14-6.

1. A container holding used oil must always be closed during storage, except when it is necessary to add or remove used oil.

2. The owner/operator must use appropriate controls and/or practices to prevent spills and overflows from used oil tanks. These include, but are not limited to:

(i) Spill prevention controls (e.g., check valves, dry disconnect couplings);

(ii) Overflow controls for continuously fed used oil tanks (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standing used oil tank);

(iii) Freeboard controls in open used oil tanks designed to maintain sufficient freeboard to prevent overfilling or overtopping by wave action, wind action, or precipitation; and/or

(iv) Standard operating procedures requiring employees to check the oil level in a used oil tank by direct observation or remote sensing prior to placing oil in the used oil tank.

3. Special requirements for the management of ignitable used oil.

(i) Owner/operator must comply with 335-14-5-.02(8);

(ii) Containers holding ignitable used oil must be located at least 15 meters (50 feet) from the facility's property line.

(iii) The owner/operator of a facility where ignitable used oil is stored or treated in a used oil tank must comply with the requirements for the maintenance of protective distances between the used oil management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code", (1977 or 1981), [incorporated by reference in rule 335-14-1-.02(2)].

(b) Conditions of units. Containers and aboveground used oil tanks used to store or process used oil at processing and re-refining facilities must be:

1. In good condition (no severe rusting, apparent structural defects or deterioration); and

2. Not leaking (no visible leaks).

(c) Secondary containment for containers. Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The floor must be sloped or the containment system must be otherwise designed, constructed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or otherwise protected from contact with accumulated liquids;

4. The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater;

5. Run-on, and the entrance of precipitation, into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-17-.06(5)(d)4. to contain any run-on and precipitation which might enter the system; and

6. Spilled or leaked used oil and accumulated precipitation must be removed from the sump or collection area in as timely a manner as necessary to prevent overflow of the collection system.

(d) Secondary containment for existing aboveground used oil tanks. Existing aboveground used oil tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms, or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the used oil tank meet the ground; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour, rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(e) Secondary containment for new aboveground used oil tanks. New aboveground used oil tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dike, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary

containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(f) Labels. Labels must be legible from a distance of at least 25 feet.

1. Containers and aboveground used oil tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil".

2. Fill pipes used to transfer used oil into underground used oil storage tanks at used oil processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil".

(g) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of Division 335-6, Volume 2 of the ADEM Administrative Code which has occurred after the effective date of these rules, an owner/operator must perform the following cleanup steps:

1. Stop the release;

2. Contain the released used oil;

3. Clean up and manage properly both the released used oil and other materials in accordance with all applicable Division 335-13 and 335-14 requirements; and

4. If necessary, repair or replace any leaking used oil storage containers or used oil tanks prior to returning them to service.

(h) Closure.

1. Aboveground used oil tanks. Owners and operators who store or process used oil in aboveground used oil tanks must comply with the following requirements:

(i) At closure of used oil tank system, the owner or operator must remove or decontaminate used oil residues in used oil tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Chapter 335-14-2.

(ii) If the owner or operator can not demonstrate that all contaminated soils can be practicably removed or decontaminated as required in 335-14-17-.06(5)(h)1.(i), then the owner or operator must close the used oil tank system and

perform post-closure care requirements that apply to hazardous waste landfills rule 335-14-6-.14(11).

2. Containers. Owners and operators who store used oil in containers must comply with the following requirements:

(i) At closure, containers holding used oil or residues of used oil must be removed from the site;

(ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Chapter 335-14-2.

(6) Analysis plan. Owners or operators of used oil processing and re-refining facilities must develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of rule 335-14-17-.06(4) and, if applicable, rule 335-14-17-.08(3). The owner or operator must keep the plan at the facility.

(a) Rebuttable presumption for used oil in rule 335-14-17-.06(4). At a minimum, the plan must specify the following:

1. Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.

2. If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(I) One of the sampling methods in Chapter 335-14-2-Appendix I; or

(II) A method shown to be equivalent under rule 335-14-1-.03(1);

(ii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iii) The methods used to analyze used oil for the parameters specified in rule 335-14-17-.06(4); and

3. The type of information that will be used to determine the halogen content of the used oil.

(b) On-specification used oil fuel in rule 335-14-17-.08(3). At a minimum, the plan must specify the following if rule 335-14-17-.08(3) is applicable:

1. Whether sample analyses or other information will be used to make this determination;

2. If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(I) One of the sampling methods in Chapter 335-14-2-Appendix I; or

(II) A method shown to be equivalent under rule 335-14-1-.03(1).

(ii) Whether used oil will be sampled and analyzed prior to or after any used oil processing/re-refining;

(iii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iv) The methods used to analyze used oil for the parameters specified in rule 335-14-17-.08(3); and

3. The type of information that will be used to make the on-specification used oil fuel determination.

(7) Tracking.

(a) Acceptance. Used oil processors/re-refiners must keep a record of each used oil shipment accepted for used oil processing/re-refining. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivered the used oil to the processor/re-refiner;

2. The name and address of the generator or processor/re-refiner from whom the used oil was sent for used oil processing/re-refining:

3. The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;

4. The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent for used oil processing/re-refining;

5. The quantity of used oil accepted; and

6. The date of acceptance.

(b) Delivery. Used oil processor/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/re-refiner, or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

2. The name and address of the burner, processor/re-refiner or disposal facility who will receive the used oil;

3. The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

4. The EPA identification number of the burner, processor/re-refiner, or disposal facility who will receive the used oil;

5. The quantity of used oil shipped; and

6. The date of shipment.

(c) Record retention. The records described in 335-14-17-.06(7)(a) and (b) must be maintained for at least three (3) years.

(8) Operating record and reporting.

(a) Operating record.

1. The owner or operator must keep a written operating record at the facility.

2. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) Records and results of used oil analyses performed as described in the analysis plan required under 335-14-17-.06(6); and

(ii) Documentation of information used to make the determinations described in the analysis plan required under 335-14-17-.06(6); and

(iii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in 335-14-17-.06(3)(b)6.(ix).

(b) Reporting. A used oil processor/re-refiner must report to the Department, in the form of a letter, on a biennial basis (by March 1 of each even numbered year), the following information concerning used oil activities during the previous calendar year;

1. The EPA identification number, name, and address of the processor/re-refiner;

2. The calendar year covered by the report; and

3. The quantities of used oil accepted for used oil processing/re-refining and the manner in which the used oil is processed/re-refined, including the specific processes employed.

(9) Off-site shipment of used oil. Used oil processors/re-refiners who initiate shipments of used oil off-site must ship the used oil using a used oil transporter who has obtained an EPA identification number.

(10) Management of residues. Owners and operators who generate residues from the storage, used oil processing, or re-refining of used oil must manage the residues as specified in rule 335-14-17-.02(1)(e).

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335-14-17-.07 Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery.

(1) General.

(a) The requirements of 335-14-17-.07 apply to used oil burners except as specified in 335-14-17-.07(1)(a)1. and (a)2. A used oil burner is a facility where used oil not meeting the specification requirements in rule 335-14-17-.02(2) is burned for energy recovery in devices identified in rule 335-14-17-.07(2)(a). Facilities burning used oil for energy recovery under the following conditions are not subject to 335-14-17-.07:

1. The used oil is burned by the generator in an on-site space heater under the provisions of rule 335-14-17-.03(5); or

2. The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(b) Other applicable provisions. Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of 335-14-17-.07 as indicated below:

1. Burners who generate used oil must also comply with rule 335-14-17-.03;

2. Burners who transport used oil must also comply with rule 335-14-17-.05;

3. Except as provided in rule 335-14-17-.07(2)(b), burners who process or re-refine used oil must also comply with rule 335-14-17-.06;

4. Burners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in rule 335-14-17-.02(2) must also comply with rule 335-14-17-.08; and

5. Burners who dispose of used oil must comply with rule 335-14-17-.09.

(c) Specification fuel. 335-14-17-.07 does not apply to persons burning used oil that meets the used oil fuel specification of rule 335-14-17-.02(2), provided that the burner complies with the requirements of rule 335-14-17-.08.

(2) Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

1. Industrial furnaces identified in rule 335-14-1-.02.

2. Boilers, as defined in rule 335-14-1-.02, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

(iii) Used oil-fired space heaters provided that the burner meets the provisions of rule 335-14-17-.03(5); or

3. Hazardous waste incinerators subject to regulation under rules 335-14-5-.15 or 335-14-6-.15.

(b) 1. With exception of 335-14-17-.07(2)(b)2., used oil burners may not process used oil unless they also comply with the requirements of rule 335-14-17-.06.

2. Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

(3) Notification.

(a) Identification numbers. Used oil burners must obtain an EPA identification number within 30 days of the effective date of these rules or prior to the burning of used oil, whichever is later.

(b) Mechanics of notification. Used oil burners must submit a correct and complete ADEM Form 8700-12 (including all appropriate attachment pages

and fees) reflecting current used oil activities to the Department annually. The Department must receive the ADEM Form 8700-12 (including all appropriate attachment pages and fees) no later than the 15th day of the specified month in the specified month schedule located at rule 335-14-1-.02(1)(a).

(c) The ADEM Form 8700-12, Notification of Regulated Waste Activity, is not complete without payment of all the appropriate fees specified in Chapter 335-1-6 of the ADEM Administrative Code.

(4) Rebuttable presumption for used oil.

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of rule 335-14-17-.02(1)(b)1.(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must determine if the used oil contains above or below 1,000 ppm total halogens by:

1. Testing the used oil;

2. Applying knowledge of the halogen content of the used oil in light of the materials or processes used; or

3. If the used oil has been received from a processor/re-refiner subject to regulation under rule 335-14-17-.06, using information provided by the processor/re-refiner.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in rule 335-14-2-.04. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste [for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 335-14-2-Appendix VIII].

1. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in rule 335-14-17-.03(6)(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

2. The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Record retention. Records of analyses conducted or information used to comply with 335-14-17-.07(4)(a), (b), and (c) must be maintained by the burner for at least 3 years.

(5) Used oil storage. Used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures (40 CFR Part 112) in addition to the requirements of 335-14-17-.07. Used oil burners are also subject to the Underground Storage Tank (Division 335-6, Volume 2) standards for used oil stored in underground used oil tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of 335-14-17-.07.

(a) Storage units. Used oil burners may not store used oil in units other than used oil tanks, containers, or units subject to regulation under Chapters 335-14-5 and 335-14-6.

1. A container holding used oil must always be closed during storage, except when it is necessary to add or remove used oil.

2. The owner/operator must use appropriate controls and/or practices to prevent spills and overflows from used oil tanks. These include, but are not limited to:

(i) Spill prevention controls (e.g., check valves, dry disconnect couplings);

(ii) Overflow controls for continuously fed used oil tanks (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standing used oil tank);

(iii) Freeboard controls in open used oil tanks designed to maintain sufficient freeboard to prevent overfilling or overtopping by wave action, wind action, or precipitation; and/or

(iv) Standard operating procedures requiring employees to check the oil level in a used oil tank by direct observation or remote sensing prior to placing oil in the used oil tank.

(b) Condition of units. Containers and aboveground used oil tanks used to store oil at burner facilities must be:

1. In good condition (no severe rusting, apparent structural defects or deterioration); and

2. Not leaking (no visible leaks).

(c) Secondary containment for containers. Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The floor must be sloped or the containment system must be otherwise designed, constructed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or otherwise protected from contact with accumulated liquids;

4. The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater;

5. Run-on, and the entrance of precipitation, into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 335-14-17-.07(5)(d)4. to contain any run-on and precipitation which might enter the system; and

6. Spilled or leaked used oil and accumulated precipitation must be removed from the sump or collection area in as timely a manner as necessary to prevent overflow of the collection system.

(d) Secondary containment for existing aboveground used oil tanks. Existing aboveground used oil tanks used to store used oil burner facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall except areas where existing portions of the used oil tank meet the ground; or

(iii) An equivalent secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(e) Secondary containment for new aboveground used oil tanks. New aboveground used oil tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

1. The secondary containment system must consist of, at a minimum:

(i) Dikes, berms or retaining walls; and

(ii) A floor. The floor must cover the entire area within the dike, berm, or retaining wall; or

(iii) An equivalent-secondary containment system.

2. The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

3. The containment system must be designed, constructed and operated to contain 100 percent of the capacity of the largest used oil tank within its boundary;

4. The containment system must be designed, constructed and operated to prevent run-on, or entrance of precipitation, into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or precipitation. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

5. The containment system must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked used oil and accumulated precipitation must be removed from the containment system in as timely a manner as necessary to prevent overflow of the system.

(f) Labels. Labels must be legible from a distance of at least 25 feet.

1. Containers and aboveground used oil tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil".

2. Fill pipes used to transfer used oil into underground used oil storage tanks at burner facilities must be labeled or marked clearly with the words "Used Oil".

(g) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of Division 335-6, Volume 2 of the ADEM Administrative Code which has occurred after the effective date of these rules, a burner must perform the following cleanup steps:

1. Stop the release;

2. Contain the released used oil;

3. Clean up and manage properly both the released used oil and other materials in accordance with all applicable Division 335-13 and 335-14 requirements; and

4. If necessary, repair or replace any leaking used oil storage containers or used oil tanks prior to returning them to service.

(6) Tracking.

(a) Acceptance. Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest bill of lading, or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivered the used oil to the burner;

2. The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;

3. The EPA identification number of the transporter who delivered the used oil to the burner;

4. The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was sent to the burner;

5. The quantity of used oil accepted; and

6. The date of acceptance.

(b) Record retention. The records described in 335-14-17-.07(6)(a) must be maintained for at least three (3) years.

(7) Notices.

(a) Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or

processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one time written and signed notice certifying that:

1. The burner has notified the Department stating the location and general description of his oil used management activities; and

2. The burner will burn the used oil only in an industrial furnace or boiler identified in rule 335-14-17-.07(2)(a).

(b) Certification retention. The certification described in 335-14-17-.07(7)(a) must be maintained for three (3) years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

(8) Management of residues. Burners who generate residues from the storage or burning of used oil must manage the residues as specified in rule 335-14-17-.02(1)(e).

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335-14-17-.08 Standards for Used Oil Fuel Marketers.

(1) Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of 335-14-17-.08:

1. Directs a shipment of off-specification used oil from their facility to a used oil burner; or

2. First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in rule 335-14-17-.02(2).

(b) The following persons are not marketers subject to 335-14-17-.08:

1. Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of used oil processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processor/re-refiners who incidentally burn used oil are not marketers subject to 335-14-17-.08;

2. Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of rule 335-14-17-.02(2).

(c) Any person subject to the requirements of 335-14-17-.08 must also comply with one of the following:

1. Rule 335-14-17-.03--Standards for Used Oil Generators;

2. Rule 335-14-17-.05--Standards for Used Oil Transporters and Transfer Facilities;

3. Rule 335-14-17-.06--Standards for Used Oil Processors and Re-refiners; or

4. Rule 335-14-17-.07--Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

(2) Prohibitions. A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in rule 335-14-17-.07(2)(a).

(3) On-specification used oil fuel.

(a) Analysis of used oil fuel. A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of rule 335-14-17-.02(2) by performing analyses or other information documenting that the used oil fuel meets the specifications.

(b) Record retention. A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under rule 335-14-17-.02(2), must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

(4) Notification.

(a) A used oil fuel marketer subject to the requirements of 335-14-17-.08 must obtain an EPA identification number within 30 days of the effective date of these rules or prior to marketing used oil fuel, whichever is later.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Department of their used oil activity by submitting a completed ADEM Form 8700-12, Notification of Regulated Waste Activity. (To obtain this form, call the Department's Land Division at (334) 271-7730.)

(5) Tracking.

(a) Off-specification used oil delivery. Any used oil marketer who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment must include the following information:

1. The name and address of the transporter who delivers the used oil to the burner;

2. The name and address of the burner who will receive the used oil;

3. The EPA identification number of the transporter who delivers the used oil to the burner;

4. The EPA identification number of the burner;

5. The quantity of used oil shipped; and

6. The date of shipment.

(b) On-specification used oil delivery. A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under rule 335-14-17-.02(2) must keep a record of each shipment of used oil to the facility to which it delivers the used oil. Records for each shipment must include the following information:

1. The name and address of the facility receiving the shipment;

2. The quantity of used oil fuel delivered;

3. The date of shipment or delivery; and

4. A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under rule 335-14-17-.08(3)(a).

(c) Burners of on-specification used oil produced on-site. A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned on-site for energy recovery meets the fuel specifications under rule 335-14-17-.02(2) must keep a record of the amount of used oil produced and used for this purpose. The record must include the following information:

1. The quantity of used oil declared on-specification and burned for energy recovery; and

2. A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under rule 335-14-17-.08(3)(a).

(d) Records retention: The records described in 335-14-17-.08(5)(a) and (b) must be maintained for at least three (3) years.

(6) Notices.

(a) Certification. Before a used oil generator, transporter, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

1. The burner has notified the Department stating the location and general description of used oil management activities; and

2. The burner will burn off-specification used oil only in an industrial furnace or boiler identified in rule 335-14-17-.07(2)(a).

(b) Certification retention. The certification described in 335-14-17-.08(6)(a) must be maintained for three (3) years from the date the last shipment of off-specification used oil is shipped to the burner.

Author: James T. Shipman; C. Edwin Johnston; Bradley N. Curvin.
Statutory Authority: Code of Alabama 1975, §§ 22-22A-4(n), 22-22A-5(3), 22-22A-5(4), 22-22A-5(20), and 22-30-9(5).
History: January 5, 1995.
Amended: January 12, 1996; March 8, 1996; April 13, 2001; May 27, 2004; March 31, 2005; May 27, 2008.

335-14-17-.09 Standards for Disposal of Used Oil.

(1) Applicability.

The requirements of 335-14-17-.09 apply to all used oils that cannot be recycled and are therefore being disposed.

(2) Disposal.

(a) Disposal of hazardous used oils. Used oils that are identified as a hazardous waste and cannot be recycled in accordance with 335-14-17 must be managed in accordance with the hazardous waste management requirements of Chapters 335-14-1 through 335-14-9.

(b) Disposal of nonhazardous used oils. Used oils that are not hazardous wastes and cannot be recycled under 335-14-17 must be disposed in accordance with the requirements of ADEM's Administrative Code, Division 335-13 (Solid Waste).

(3) Reserved,

Author: James T. Shipman; Linda J. Knickerbocker.
Statutory Authority: Code of Alabama 1975, §§ 22-22A-4(n), 22-22A-5(3), 22-22A-5(4), 22-22A-5(20), and 22-30-9(5).
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