



SOLID WASTE DISPOSAL FACILITY PERMIT

PERMITTEE: Alabama Power Company

FACILITY NAME: Greene County Steam Plant Landfill

FACILITY LOCATION: West 1/2 of Section 22, Township 19 North, Range 3 East in Greene County, Alabama. The facility consists of 14.95 acres with 14.95 acres for disposal.

PERMIT NUMBER: 32-02

PERMIT TYPE: Industrial Landfill

WASTE APPROVED FOR DISPOSAL: Non-hazardous construction and demolition waste such as waste building materials, masonry, wall board, roofing material, wood products, pipe, insulation and similar materials, rubbish such as paper products, cartons, cardboard, pallets, scrap metal, tires and furniture; asbestos containing material; and non-hazardous industrial wastes such as anion/cation resins and non-hazardous sandblast waste, spent desiccant, and off-specification anhydrous sodium carbonate (soda ash).

APPROVED WASTE VOLUME: Maximum Daily Volume of 5 cubic yards per day

APPROVED SERVICE AREA: Greene County Steam Plant located in Forkland, Alabama.

In accordance with and subject to the provisions of the Alabama Solid Wastes and Recyclable Materials Management Act, as amended, Code of Alabama 1975, SS 22-27-1 to 22-27-27 ("SWRMMA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, SS 22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to dispose of the above-described solid wastes at the above-described facility location.

ISSUANCE DATE: ????????????????

EFFECTIVE DATE: ????????????????

EXPIRATION DATE: ????????????????

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE PERMIT**

Permittee: Alabama Power Company
Post Office Box 2641
Birmingham, Alabama 35291-0830

Landfill Name: Greene County Steam Plant Landfill

Landfill Location: Greene County Road 18
Forkland, Alabama
West ½ of Section 22, Township 19 North, Range 3 East
Greene County

Permit Number: 32-02

Landfill Type: Industrial

Pursuant to the Solid Wastes & Recyclable Materials Management Act, Code of Alabama 1975, §§22-27-1, et seq., as amended (the “Act”), and attendant regulations promulgated thereunder by the Alabama Department of Environmental Management (ADEM), this permit is issued Alabama Power Company (hereinafter called the Permittee), to operate a solid waste disposal facility, known as the Greene County Steam Plant Landfill.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in any attachments), and the applicable regulations contained in 335-13-1 through 335-13-14 of the ADEM Administrative Code (hereinafter referred to as the "ADEM Admin. Code" or as “335-13”). Rules cited are set forth in this document for the purpose of Permittee reference. Any rule that is cited incorrectly in this document does not constitute grounds for noncompliance on the part of the Permittee. Applicable ADEM Admin. Codes are those that are in effect on the date of issuance of this permit or any revisions approved after permit issuance.

This permit is based on the information submitted to ADEM on July 9, 2015, for permit renewal and is known as the Permit Application (hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action. The Permittee must inform ADEM of any deviation from or changes in the information in the Application that would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective as of ??????????????????, and shall remain in effect until ??????????????????, unless suspended or revoked.

Alabama Department of Environmental Management

Date Signed

SECTION I. STANDARD CONDITIONS.

- A. Effect of Permit. The Permittee is allowed to dispose of nonhazardous solid waste in accordance with the conditions of this permit and 335-13. Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Except for actions brought under the Act, compliance with the conditions of this permit shall be deemed to be compliance with applicable requirements in effect as of the date of issuance of this permit and any future revisions.
- B. Permit Actions. This permit may be suspended, revoked or modified for cause. The filing of a request for a permit modification or the notification of planned changes or anticipated noncompliance on the part of the Permittee, and the suspension or revocation does not stay the applicability or enforceability of any permit condition.
- C. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- D. Definitions. For the purpose of this permit, terms used herein shall have the same meaning as those in 335-13, unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.
1. "EPA" for purposes of this permit means the United States Environmental Protection Agency.
 2. "Permit Application" for the purposes of this permit, means all permit application forms, design plans, operational plans, closure plans, technical data, reports, specifications, plats, geological and hydrological reports, and other materials which are submitted to ADEM in pursuit of a solid waste disposal permit.
- E. Duties and Requirements.
1. Duty to Comply. The Permittee must comply with all conditions of this permit except to the extent and for the duration such noncompliance is authorized by a variance granted by ADEM. Any permit noncompliance, other than noncompliance authorized by a variance, constitutes a violation of the Act and is grounds for enforcement action, permit suspension, revocation, modification, and/or denial of a permit renewal application.
 2. Duty to Reapply. 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. The renewal application must be submitted to ADEM at least 180 days before this permit expires.
 3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application as required by Section I.,E.,2., and, through no fault of the Permittee, ADEM has not made a final decision regarding the renewal application.
 4. Need to Halt or Reduce Activity Not A Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.
 5. Duty to Mitigate. In the event of noncompliance with this 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.

6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit.
7. Duty to Provide Information. If requested, the Permittee shall furnish to ADEM, within a reasonable time, any information that ADEM may reasonably need to determine whether cause exists for denying, suspending, revoking, or modifying this permit, or to determine compliance with this permit. If requested, the Permittee shall also furnish ADEM with copies of records kept as a requirement of this permit.
8. Inspection and Entry. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the employees of ADEM or their authorized representative to:
 - a. Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
 - d. Sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act.
9. Monitoring, Corrective Actions, and Records.
 - a. Samples and measurements taken for the purpose of monitoring or corrective action shall be representative of the monitored activity. The methods used to obtain representative samples to be analyzed must be the appropriate method from 335-13-4 or the methods as specified in the Application attached hereto and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the Application. All field tests must be conducted using approved EPA test kits and procedures.
 - b. The Permittee shall retain records, at the location specified in Section I.,I., of all monitoring, or corrective action information, including all calibration and maintenance records, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record or for periods elsewhere specified in this permit. These periods may be extended by the request of ADEM at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
 - c. Records of monitoring and corrective action information shall include.
 - i. The exact place, date, and time of sampling or measurement.
 - ii. The individual(s) and company who performed the sampling or measurements.
 - iii. The date(s) analyses were performed.
 - iv. The individual(s) and company who performed the analyses.
 - v. The analytical techniques or methods used.

- vi. The results of such analyses.
 - d. The Permittee shall submit all monitoring and corrective action results at the interval specified elsewhere in this permit.
10. Reporting Planned Changes. The Permittee shall notify ADEM, in the form of a request for permit modification, at least 90 days prior to any change in the permitted service area, increase in the waste received, or change in the design or operating procedure as described in this permit, including any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
 11. Transfer of Permit. This permit may be transferred to a new owner or operator. All requests for transfer of permits shall be in writing and shall be submitted on forms provided by ADEM. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of this permit.
 12. Certification of Construction. The Permittee may not commence disposal of waste in any new cell or phase until the Permittee has submitted to ADEM, by certified mail or hand delivery, a letter signed by both the Permittee and a professional engineer stating that the facility has been constructed in compliance with the permit. ADEM must inspect the constructed cells or phases before the owner or operator can commence waste disposal unless the Permittee is notified that ADEM will waive the inspection.
 13. Compliance Schedules. Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule required and approved by ADEM shall be submitted no later than 14 days following each schedule date.
 14. Other Noncompliance. The Permittee shall report all instances of noncompliance with the permit at the time monitoring reports are submitted.
 15. Other Information. If the Permittee becomes aware that information required by the Application was not submitted or was incorrect in the Application or in any report to ADEM, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to ADEM, within a reasonable time, information related to compliance with the permit.
- F. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of contaminants (including leachate and explosive gases) to air, soil, groundwater, or surface water, which could threaten human health or the environment.
- G. Inspection Requirements.
1. The Permittee shall comply with all requirements of 335-13.
 2. The Permittee shall conduct random inspections of incoming loads.
 3. Records of all inspections shall be included in the operating record.
- H. Recordkeeping and Reporting.
1. The Permittee shall maintain a written operating record at the location specified in Section I.,I. The operating record shall include:
 - a. Documentation of inspection and maintenance activities.
 - b. Daily Volume reports.

- c. Personnel training documents and records.
 - d. Solid/Hazardous Waste Determination Forms for Industrial Wastes, and associated ADEM disposal approval correspondence for industrial waste and special waste.
 - e. Groundwater monitoring records if required.
 - f. Explosive gas monitoring records if required.
 - g. Surface water and leachate monitoring records.
 - h. Copies of this Permit and the Application.
 - i. Copies of all variances granted by ADEM, including copies of all approvals of special operating conditions.
2. Quarterly Volume Report. Beginning with the effective date of this permit, the Permittee shall submit, within thirty (30) days after the end of each calendar quarter, a report summarizing the daily waste receipts for the previous (just ended) quarter. Copies of the quarterly reports shall be maintained in the operating record.
3. Monitoring and Corrective Action Reports. The Permittee shall submit reports on all monitoring and corrective activities conducted pursuant to the requirements of this permit, including, but not limited to, groundwater, surface water, explosive gas and leachate monitoring. The groundwater monitoring shall be conducted in March and September of each year, or as directed by ADEM, and the reports shall be submitted at least semi-annually, or as directed by ADEM. The reports should contain all monitoring results and conclusions from samples and measurements conducted during the sampling period. Explosive gas monitoring must be submitted on a quarterly basis, and the reports should be submitted to ADEM and placed in the operating record within 30 days of the monitoring event. Copies of the groundwater and explosive gas monitoring reports shall be maintained in the operating record.
4. Availability, Retention, and Disposition of Records.
- a. All records, including plans, required under this permit or 335-13 must be furnished upon request, and made available at reasonable times for inspection by any officer, employee, or representative of ADEM.
 - b. All records, including plans, required under this permit or 335-13 shall be retained by the Permittee for a period of at least three years. The retention period for all records is extended automatically during the course of any unresolved enforcement action regarding the facility, or as requested by ADEM.
 - c. A copy of records of waste disposal locations and quantities must be submitted to ADEM and local land authority upon closure of the facility.
- I. Documents to be Maintained by the Permittee. The Permittee shall maintain, at the Alabama Power Company Greene County Steam Plant office located in Forkland, Alabama, the following documents and amendments, revisions and modifications to these documents until an engineer certifies closure of the permitted landfill.
- 1. Operating record.
 - 2. Closure Plan.

- J. Mailing Location. All reports, notifications, or other submissions which are required by this permit should be sent via signed mail (i.e. certified mail, express mail delivery service, etc.) or hand delivered to:
1. Mailing Address.
Chief, Solid Waste Branch
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463
 2. Physical Address.
Chief, Solid Waste Branch
Alabama Department of Environmental Management
1400 Coliseum Blvd.
Montgomery, Alabama 36110-2059
- K. Signatory Requirement. All applications, reports or information required by this permit, or otherwise submitted to ADEM, shall be signed and certified by the owner as follows:
1. If an individual, by the applicant.
 2. If a city, county, or other municipality or governmental entity, by the ranking elected official, or by a duly authorized representative of that person.
 3. If a corporation, organization, or other legal entity, by a principal executive officer, of at least the level of Vice President, or by a duly authorized representative of that person.
- L. Confidential Information. The Permittee may claim information submitted as confidential if the information is protected under Code of Alabama 1975 §§22-39-18, as amended.
- M. State Laws and Regulations. Nothing in this permit shall be construed to preclude the initiation of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

SECTION II. GENERAL OPERATING CONDITIONS.

- A. Operation of Facility. The Permittee shall operate and maintain the disposal facility consistent with the Application, this permit, and 335-13.
- B. Open Burning. The Permittee shall not allow open burning without prior written approval from ADEM and other appropriate agencies. A burn request should be submitted in writing to ADEM outlining why that burn request should be granted. This request should include, but not be limited to, specifically what areas will be utilized, types of waste to be burned, the projected starting and completion dates for the project, and the projected days and hours of operation. The approval, if granted, shall be included in the operating record.
- C. Prevention of Unauthorized Disposal. The Permittee shall follow the approved procedures for the detecting and preventing the disposal of free liquids, regulated hazardous waste, PCB's, and medical waste at the facility.
- D. Unauthorized Discharge. The Permittee shall operate the disposal facility in such a manner that there will be no water pollution or unauthorized discharge. Any discharge from the disposal facility or practice thereof may require a National Pollutant Discharge Elimination System permit under the Alabama Water Pollution Control Act.
- E. Industrial Waste Disposal. The Permittee shall dispose of industrial waste as required by 335-13-4-.21(1)(c), and as specified in the Application.

- F. Boundary Markers. The Permittee shall ensure that the facility is identified with a sufficient number of permanent boundary markers that are at least visible from one marker to the next.

SECTION III. SPECIFIC REQUIREMENTS FOR INDUSTRIAL WASTE LANDFILLS.

A. Waste Identification and Management.

1. Subject to the terms of this permit, the Permittee may accept for disposal the nonhazardous solid wastes listed in III.B. Disposal of any other wastes is prohibited, except waste granted a temporary or one time waiver by the Director.
2. The total permitted area for the Greene County Steam Plant Landfill is approximately 14.95 acres, with a disposal area of 14.95 acres.
3. The maximum average daily volume of waste disposed at the facility, as contained in the permit application, shall not exceed 5 cubic yards/day. Should the average daily volume exceed this value by 20% or 100 tons/day, whichever is less, for two (2) consecutive quarters the permittee shall be required to modify the permit in accordance with 335-13-5-.06(2)(a)5. The average daily volume shall be computed as specified by 335-13-5-.06(2)(a)5.(i).

- B. Waste Streams. The Permittee may accept for disposal non-hazardous construction and demolition waste such as waste building materials, masonry, wall board, roofing material, wood products, pipe, insulation and similar materials, rubbish such as paper products, cartons, cardboard, pallets, scrap metal, tires and furniture; asbestos containing material; and non-hazardous industrial wastes such as anion/cation resins and non-hazardous sandblast waste, spent desiccant, and off-specification anhydrous sodium carbonate (soda ash).

- C. Service Area. The service area for this landfill, as contained in the permit application, is Greene County Steam Plant located in Forkland, Alabama.

- D. Waste Placement, Compaction, and Cover. All waste shall be confined to an area as small as possible and placed onto an appropriate slope not to exceed 4 to 1 (25%). All waste shall be spread in layers two feet or less in thickness and thoroughly compacted weekly with adequate landfill equipment prior to placing additional layers of waste or placing the monthly cover. A minimum of six inches of compacted earth shall be added at the conclusion of each month of operation, which is defined as the last Friday of each month (See Section VIII., 1.).

- E. Liner Requirements. At this time, the Permittee shall not be required to install a liner system. The base of the landfill shall be a minimum of five (5) feet above the temporal fluctuation of the groundwater table.

- F. Security. The Permittee shall provide artificial and/or natural barriers, which prevent entry of unauthorized vehicular traffic to the facility.

- G. All Weather Access Roads. The Permittee shall provide an all-weather access road to the dumping face that is wide enough to allow passage of collection vehicles.

- H. Adverse Weather Disposal. The Permittee shall provide for disposal activities in adverse weather conditions.

- I. Personnel. The Permittee shall maintain adequate personnel to ensure continued and smooth operation of the facility.

- J. Environmental Monitoring and Treatment Structures. The Permittee shall provide protection and proper maintenance of environmental monitoring and treatment structures.

- K. Vector Control. The Permittee shall provide for vector control as required by ADEM Admin. Code 335-13.

- L. Bulk or Noncontainerized Liquid Waste. The Permittee shall not dispose of bulk or noncontainerized liquid waste, or containers capable of holding liquids, unless the conditions of 335-13-4-.23(1)(j) are met.
- M. Empty Containers. Empty containers larger than 10 gallons in size must be rendered unsuitable for holding liquids prior to disposal in the landfill unless otherwise approved by ADEM.
- N. Other Requirements. ADEM may enhance or reduce any requirements for operating and maintaining the landfill as deemed necessary by the Land Division.
- O. Other Permits. The Permittee shall operate the landfill according to this and any other applicable permits.
- P. Scavenging and Salvaging Operations. The Permittee shall prevent scavenging and salvaging operations, except as part of a controlled recycling effort. Any recycling operation must be in accordance with plans submitted and approved by ADEM.
- Q. Signs. If the landfill is available to the public or commercial haulers, the Permittee shall provide a sign outlining instructions for use of the site. The sign shall be posted and have the information required by 335-13-4-.23(1)(f).
- R. Litter Control. The Permittee shall control litter.
- S. Fire Control. The Permittee shall provide fire control measures.

SECTION IV. GROUNDWATER MONITORING REQUIREMENTS.

At this time, groundwater monitoring is not being required. If at any time the Department determines that a groundwater monitoring system is deemed necessary for the protection of human health and the environment, the Permittee must, within 90 days, submit an application for permit modification for the installation of an groundwater monitoring system that meets the proper regulatory requirements of the Alabama Department of Environmental Management

SECTION V. GAS MONITORING REQUIREMENTS.

At this time, gas monitoring is not being required (See Section VIII., 2.). If at any time the Department determines that a explosive gas monitoring system is deemed necessary for the protection of human health and the environment, the Permittee must, within 90 days, submit an application for permit modification for the installation of an explosive gas monitoring system that meets the proper regulatory requirements of the Alabama Department of Environmental Management.

SECTION VI. SURFACE WATER MANAGEMENT REQUIREMENTS.

The permittee shall construct and maintain run-on and run-off control structures. Any discharges from drainage control structures shall be permitted through a discharge permit issued by the ADEM.

SECTION VII. CLOSURE AND POST-CLOSURE REQUIREMENTS.

The Permittee shall close the landfill and perform post-closure care of the landfill in accordance with 335-13.

- A. Final Cover. The Permittee shall grade final soil cover such that surface water does not pond over the permitted area as specified in the Application. The final cover system shall be constructed as specified in the application.

- B. Vegetative Cover. The Permittee shall establish a vegetative or other appropriate cover within 90 days after completion of final grading requirements in the Application. Preparation of a vegetative cover shall include, but not be limited to, the placement of seed, fertilizer, mulch, and water.
- C. Notice of Intent. The Permittee shall place in the operating record and notify ADEM of their intent to close the landfill prior to beginning closure.
- D. Completion of Closure Activities. The Permittee must complete closure activities of each landfill unit in accordance with the Closure Plan within 180 days of the last known receipt of waste.
- E. Certification of Closure. Following closure of each unit, the Permittee must submit to ADEM a certification, signed by an engineer, verifying the closure has been completed according to the Closure Plan.
- F. Post-Closure Care Period. Post-closure care activities shall be conducted after closure of each unit throughout the life of this permit and continuing for a period of thirty (30) years following closure of the facility. ADEM may shorten or extend the post-closure care period applicable to the solid waste disposal facility. The Permittee shall reapply in order to fulfill the post-closure care requirements of this permit.
- G. Post-Closure Maintenance. The Permittee shall provide post closure maintenance of the facility to include regularly scheduled inspections. This shall include maintenance of the cover, vegetation, monitoring devices and pollution control equipment and correction of other deficiencies that may be observed by ADEM. Monitoring requirements shall continue throughout the post closure period as determined by ADEM unless all waste is removed and no unpermitted discharge to waters of the State have occurred.
- H. Post-Closure Use of Property. The Permittee shall ensure that post closure use of the property never be allowed to disturb the integrity of the final cover, liner, or any other component of the containment system. This shall preclude the growing of deep-rooted vegetation on the closed area.
- I. Certification of Post-Closure. Following post-closure of each unit, the Permittee must submit to ADEM a certification, signed by an engineer, verifying the post-closure has been completed according to the Post-Closure Plan.
- J. Notice in Deed to Property. The Permittee shall record a notation onto the land deed containing the property utilized for disposal within 90 days after permit expiration, revocation or when closure requirements are achieved as determined by ADEM as stated in the Application. This notation shall state that the land has been used as a solid waste disposal facility, the name of the Permittee, type of disposal activity, location of the disposal facility and beginning and closure dates of the disposal activity.
- K. Recording Instrument. The Permittee shall submit a certified copy of the recording instrument to ADEM within 120 days after permit expiration, revocation, or as directed by ADEM as described in the Application.
- L. Removal of Waste. If the Permittee, or any other person(s), wishes to remove waste, waste residues, or any liner or contaminated soils, the owner must request and receive prior approval from ADEM.

SECTION VIII. VARIANCES.

1. The Permittee is granted a variance from Rule 335-13-4-.23(1)(a)1. requiring weekly cover. The Permittee shall be required to cover all exposed waste by the last Friday of each month (See Section III., D.).
2. The Permittee is granted a variance from Rule 335-13-4-.16 requiring explosive gas monitoring (See Section V.).
3. The Permittee is granted a variance from Rule 335-13-4-.12(2)(f) requiring a 100 foot buffer zone.

Any variance granted by ADEM may be terminated by ADEM whenever ADEM finds, after notice and opportunity for hearing, that the petitioner is in violation of any requirement, condition, schedule, limitation or any other provision of the variance, or that operation under the variance does not meet the minimum requirements established by state and federal laws and regulations or is unreasonably threatening the public health.

Permit Application

600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291-0830



July 9, 2015



Hand Delivery

Mr. Eric Sanderson, Chief
Solid Waste Branch - Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110-2059

Dear Mr. Sanderson:

Enclosed is the industrial landfill permit renewal package for the Alabama Power Company Greene County Steam Plant Landfill, Permit # 32-02. Included in the package are three (3) copies of the completed permit application with required attachments and a check in the amount of \$3,395.00 to cover the industrial landfill renewal fee.

If you have any questions, please contact Mr. Dustin Brooks at (205) 257-4194.

Sincerely,

A handwritten signature in blue ink that reads "Mike Godfrey". The signature is written in a cursive style with a large initial "M".

Mike Godfrey
Manager
Environmental Compliance

Enclosure

GREENE COUNTY STEAM PLANT

LANDFILL OPERATIONAL PLAN

ADEM PERMIT # 32-02

Greene County Steam Plant Landfill Operational Plan

Landfill Siting

- Flood Plain

The landfill is not located in an area designated as being within the 100-year floodplain.

- Endangered Species

No known endangered or threatened species of plants, fish or wildlife are affected by the existing landfill.

- Water Resources

Water will naturally flow towards a low lying area following the general slope of the land. The existing landfill will not cause a discharge of dredged material or fill material into waters of the State due to the distance the landfill is from any such waters, the slope of the landfill and the natural topography of the land directs any water away from the river. The landfill is located near the Warrior River, approximately 130 feet from the landfill boundary. The bottom elevation of solid waste will be a minimum of ten feet above the seasonal high groundwater table or bedrock.

- Proximity to Airports

There is no airport runway within 10,000 feet of the existing landfill.

- Site Stability

There are no known zones of active faults, sink holes or karst zones in the area near the landfill.

- Cultural Resources

There is no archaeological or historically sensitive area within the existing landfill boundaries.

- Buffer

A buffer zone is not necessary because the landfill site is located on Alabama Power Company property with no other landowners or public access within 100 feet.

- Groundwater Wells - Source

There are five (5) drinking water wells within close proximity of the landfill site and are located on Attachment A. The closest well provides water to the Plant itself and is located approximately 1,000 feet from the landfill boundary. One additional well is located on plant property and is approximately 6,800 feet from the landfill boundary. Three other wells are privately owned and are found approximately 4400, 6000, and 6400 feet from the landfill boundaries.

Geologic Review

Regional Geology

The Greene County Steam Plant is located in Greene County, Alabama, approximately six (6) miles northeast of the City of Demopolis. The landfill is located on plant property owned by Alabama Power Company. The site is located in the Gulf Coastal Plain Province and specifically within the alluvial plain of the Black Warrior River. Sediments of the alluvial plain have covered the Black Prairie district, which projects through this area of the state. The alluvial plain district is characterized by a broad, level plain with relatively little or no relief. The district is underlain by unconsolidated alluvial and terrace deposits. Elevations within a one- (1) mile radius of the site range from 100 to 80 feet above mean sea level (msl). The Black Warrior River is the primary drainage feature in the area. Secondary features typically form dendritic to a modified trellis drainage patterns. Johnson Branch and Backbone Creek are the two- (2) most prominent secondary drainage features in the area. Both creeks discharge to the Black Warrior River. Numerous low-lying swampy areas are located adjacent to the river. Unconsolidated sediments deposited by the Black Warrior River underlie the alluvial plain district in this portion of Alabama. Sediments typically consist of a varied sequence of gravels, sands, silts, and clays. These deposits may reach thicknesses of 80 feet in the regional area but are typically less than 40 feet thick at the site.

Site Geology

The solid waste landfill at Greene County Steam Plant is located in an area underlain by unconsolidated alluvial deposits at the surface. Exploratory drilling at the landfill indicates that the area is covered by twenty-four (24) to thirty-five (35) feet of river alluvium (See Attachment B). The alluvium ranges from clays and silty clays to clayey sands to sands. The alluvial material is underlain by the Mooreville Chalk, which is comprised of a compact, clayey chalk. The Mooreville reaches thicknesses of 420 feet. The Mooreville is overlain by the Demopolis Chalk, which also outcrops in the vicinity of the site. The site area is underlain by an unconfined surface aquifer formed by the alluvial deposits. Groundwater levels obtained from auger borings drilled at the landfill ranged from 12.6 to 19.7 feet below the ground surface which ranges from approximately elevation 85 (msl) to 87.4 (msl). The groundwater gradient at the landfill flows gently to the southeast where a low swampy area is located. The Eutaw and Tuscaloosa aquifers are also present at the site. Both of these aquifers are confined by the Mooreville Chalk, which acts as an aquitard. As previously stated, the Mooreville is approximately 420 feet thick in the area. Surface run-off from the site flows to the east-southeast, where it enters a low-lying swampy area. No areas were observed where site run-off would directly enter the river. Based on these characteristics and the inert properties of the material to be placed in the landfill, contamination of groundwater should not occur.

Plans Required

APC will maintain a written operating record at the site. The following information will become part of that operating record and will be kept on file at the facility.

These records will be available to ADEM upon request:

- Documentation of inspection and maintenance activities
- Daily volume reports
- Personnel training records
- Waste certifications and disposal approvals for Special Wastes, Industrial Wastes, etc.
- Other pertinent operating, inspection, maintenance, and monitoring information

- Copies of all variances granted by the Department, including copies of all approvals of special operating conditions

APC will submit Quarterly Volume Reports as specified in Rule 335-13-4-.23(16). All records will be retained for a period of at least three (3) years.

Groundwater Monitoring

Due to the inert nature of the material to be disposed and the site geology, groundwater monitoring is not been required.

Cover

- Intermediate Cover

As the frequency and volume of waste placed in the landfill varies greatly, the active face of the landfill will be covered at least monthly. A minimum of six inches of compacted earth will be placed on the active part of the active cell as intermediate cover.

Explosive Gases – Methane Monitoring

ADEM granted APC a variance of Section 13-4-.16 relating to methane gas testing on October 29, 1990. This variance was based on the distance of the landfill from adjacent property owners and enclosed structures and the type of waste disposed. (See Attachment 1)

Drainage

There will be no off-site surface drainage passing over the disposal site. This site will not create a storm water discharge point at this time and will be evaluated as the landfill topography changes over the life of the permit.

Access

The landfill is located on APC property that is enclosed within a fence. Signs are posted on the gates entering APC property stating that this is APC property and that all visitors must register with security. Security is present on site 24 hours per day and monitors plant property.

Closure

Closure will be such that surface water does not pond over the disposal facility. A soil cover will be placed on the landfill as each cell is completed and the slope will be graded to less than a 25 % grade but greater than or equal to a 5% grade. The cover will be two feet thick, comprised of 18 inches of earthen material that has a permeability of no greater than $1 \times 10^{-5} \text{ cm/sec}$ and 6 inches of topsoil. Slopes longer than 25 feet will be terraced to prevent erosion. Each cell will be graded within 30 days after the lift is complete. Vegetative growth will be established within 30 days after the completion of final grading. The vegetative growth will be established either by seeding, using a mixture designed to germinate and mature under the growing conditions at the time of planting. Alternatively, the cover can be established by planting an appropriate variety of grass sod. The vegetative cover will be maintained as necessary to ensure adequate growth. Maintenance is to include watering and fertilizer to insure proper cover. It is estimated that the total volume remaining in the landfill as proposed is approximately 24,000 cubic yards. The landfill size is approximately 16.5 acres. Closure will be completed within 180 days following the last known receipt of waste. Post closure care will be performed for a minimum of 30 years. Post closure maintenance will include annual inspections and any problems will be corrected in a timely manner. All eroded areas will be filled and reseeded. Cover will be maintained as solid and will not allow ponding. Following completion of the post-closure care period, a certification will be submitted to the Department, signed by an independent registered professional engineer verifying that post-closure care has been completed and a copy will be placed in the operating record. Post-closure use of the property will never be allowed to disturb the integrity of the final cover and current plans do not include post-closure use of property. Within 90 days after closure or permit expiration, APC will record a notation onto the land deed containing the property utilized for disposal in accordance with regulation 335-13-4-.20(14). APC will submit a certified copy of the

recording instrument to the Department within 120 days after permit expiration or as directed by the Department in accordance with regulation 335-14-4-.20(15). Signs will be placed at all boundaries indicating that this area was used as a landfill and that no activity is to be conducted within the landfill boundaries. Any waste that is dumped at the closed landfill will be removed and placed in an approved landfill by the permittee. All access control structures will be maintained during the post-closure period. Any necessary maintenance will be performed in a timely manner. Vector control shall be conducted to prevent any problems.

General Operational Standards

Open Burning

No unpermitted open burning is conducted at any APC facility. No open burning will be conducted at the landfill site.

Acceptable Wastes

Typical wastes that will be accepted at the landfill include construction and demolition waste, rubbish, asbestos, landscaping, and approved industrial wastes

Prohibited Wastes

No prohibited wastes are placed in the landfill. Routine inspections will be conducted to ensure that no prohibited waste is placed in the landfill.

- Hazardous or PCB Waste

Greene County Steam Plant has a separate program in place for the management of hazardous waste and PCB waste.

- Medical Waste

No regulated medical waste is generated routinely on site. Waste from medical attention/first aid events is handled by the emergency responders.

- Liquid Waste

No liquid or potentially liquid waste streams are placed in the landfill.

- Containers

Containers with a liquid capacity of 10 gallons or more are rendered incapable of holding liquids before being placed in the landfill.

Service Area

Only waste that is generated by Alabama Power Company will be disposed of in the landfill. No out-of-state waste is accepted.

Landfill Markers

The landfill boundaries will be identified with a sufficient number of permanent markers which are visible from one marker to the next.

Specific Requirements for Landfills

- Intermediate Compaction and Cover

A minimum of six (6) inches of compacted earth will be placed on the active part of the active cell at the conclusion of each month's operation or if the volume of material placed in the landfill is minimal, the alternate cover tarp will be utilized.

- Cell Closure

Final grading of each cell will be conducted within 60 days after landfilling is complete for that cell. Final earth cover shall be a minimum of two feet of compacted soil (18 inches of clay and 6 inches of topsoil). A two-foot soil cover will be placed on the landfill as each cell is completed and the slope will be graded to less than a 25 % grade but greater than or equal to a 5% grade. Slopes longer than 25 feet will be terraced to prevent erosion. Each cell will be graded within 60 days after landfilling. Vegetative growth will be established within 30 days after the completion of final grading for each completed cell. The vegetative cover will be maintained as necessary to ensure adequate growth. The waste will be dumped at the top of the cell in a confined space and will be layered in 2' or less layers. As the operator daily inspects the active cell, these layers will be thoroughly compacted by the landfill equipment prior to placing any more waste in the cell on an as needed basis. At the conclusion of the week, the waste placed in the active cell that week will have the weekly cover placed on the cell or the alternate cover material, tarp, will be used. Waste will be initially disposed of in Cell #1 by digging a trench and placing the waste on the open face with a slope. After the trench landfilling method has utilized the space in Cell # 1, the waste will be disposed by placing the material on the top and utilizing the area fill method. Asbestos waste is segregated and disposed of in Cell # 2. No material is allowed to be removed once placed in the landfill. Only APC employees are allowed on site therefore no control measures are necessary to insure no material is removed from the landfill. Litter control will be conducted as needed by the landfill operator. A fire brigade crew is on site and available should the need arise. The facility will be operated per the written plant procedure and the guidance given in this permit package. The site is located on APC property that has 24-hour security surveillance. Disposal can be postponed

if weather does not permit the use of the road to the landfill but the road will not be heavily traveled so the condition of the road should remain passable at all times. Since the landfill is infrequently used and no one is stationed at the landfill, personnel facilities are provided at the main plant facility.

Special Wastes

Asbestos

Asbestos waste will also be generated and disposed of in the plant landfill. The asbestos waste will be primarily disposed of in asbestos cells # 1 and # 3 (D-380546). Once the trench landfilling method has utilized all of the space in asbestos cells labeled # 1, # 2, and # 3 on the drawing, the asbestos material will be placed on the top and utilizing the area fill method in the area designated as Cell 2 on the drawing. The asbestos waste that is generated on site from the ongoing asbestos abatement program is placed into properly labeled, containers and conditioned as to prevent the material from becoming airborne. The containers shall be placed in a specially prepared place and covered with a minimum of 12 inches of cover at the end of each working day that any asbestos is placed in the landfill. Special precautions are taken by all personnel handling the containers to ensure that the bags are not ruptured prior to the placement of the required daily earth cover.

Sandblast Waste

This waste results from the surface preparation of equipment or structures prior to painting. Each lot of this waste is analyzed for TCLP metals to ensure it is non-hazardous prior to disposal.

Spent Anion/Cation Resin

Spent anion/cation resins are used in the on-site water treatment plant. The resins are disposed of when they fail to meet operational specifications. This waste stream is a low volume/frequency waste.

Off Spec Sodium Carbonate (Soda Ash)

Unused sodium carbonate that fails to meet operational specifications will be disposed of in the landfill. This waste stream is a low volume/frequency waste.