

**STATEMENT OF BASIS
SOUTHERN NATURAL GAS COMPANY
HOLY TRINITY COMPRESSOR STATION
HOLY TRINITY, RUSSELL COUNTY, ALABAMA
FACILITY NO. 211-0023**

This proposed Title V Major Source Operating Permit (MSOP) fourth renewal is issued under the provisions of ADEM Admin. Code chap. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The current MSOP was originally issued on August 31, 2015, and is scheduled to expire on October 10, 2020. There have been no modifications to or additions of significant emission sources at this facility since the issuance of the third MSOP.

Southern Natural Gas Company (SNGC) operates a compressor station for the transmission of pipeline natural gas. The significant sources of air pollutants at this facility are two 1,200 hp Cooper-Bessemer 2-stroke, lean-burn (2SLB) natural gas-fired reciprocating internal combustion engines (RICE) (Emission Unit Nos. C001 and C002) and one 173 hp Onan, Ford 100GGHD 4-stroke, rich-burn (4SRB) natural gas-fired emergency generator (Emergency Generator No. 1). Insignificant emission sources at this station include one 10,000 gallon oil storage tank, two 1,100 gallon oil storage tanks, one 1,025 gallon coolant storage tank, a 15 gallon parts washer, small oil/paint drums and containers, maintenance equipment (drilling/grinding), gas scrubbers, one 0.7 MMBtu/hr gas-fired boiler, one 5,000 Btu/hr gas-fired heater, one 40 gallon gas-fired water heater, and one electric air compressor.

Applicability: Federal Regulations

Title V

This facility is a major source under Title V regulations because the potential emissions for nitrogen oxides (NO_x) exceed the 100 TPY major source threshold. It is not a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions are not greater than 10 TPY and the total HAP potential emissions are not greater than 25 TPY.

Prevention of Significant Deterioration (PSD)

This facility is located in an attainment area for all criteria pollutants, and the facility operations are not one of the 28 listed major sources categories; therefore, the applicable major source threshold is 250 TPY for criteria pollutants. The facility is a major source under PSD regulations because the facility-wide potential emissions for NO_x exceed 250 TPY. However, the two 1,200 hp RICE were installed in 1967 (prior to the PSD applicability date of January 1977) and have not been modified since their installation. Therefore, there are no regulatory emission limits applicable to these engines under PSD regulations.

NSPS

Emission Unit Nos. C001 and C002, and the emergency generator at this facility are not subject

to 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(88)] based on the dates that these engines were manufactured (1967, 1967, and 1997, respectively), all of which are prior to each units applicability date.

The compressors associated with Compressor Engine Nos. 1 and 2 (Emission Unit Nos. C001 and C002) were installed prior to the August 23, 2011 applicability date of 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distributions [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(91)]; therefore, these units are not subject to this Subpart.

The Holy Trinity Compressor Station is considered a natural gas compressor facility and is potentially subject to 40 CFR Part 60, Subpart OOOOa, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After September 18, 2015 [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(91)(a)]. However, all equipment and processes potentially subject to this regulation were installed and modified prior to the applicability date; therefore, this facility is not subject to this Subpart.

The storage tanks do not meet the applicability criteria for NSPS, Subpart K, Ka, or Kb [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(9)(a) and (b), respectively]. The heaters, boiler and water heaters do not meet the applicability criteria for NSPS, Subpart Dc [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(2)(c)].

MACT

This facility is not a major source for HAPs and operates two 1,200 hp 2SLB reciprocating engines (Emission Unit Nos. C001 and C002) that were installed in 1967. These units are affected sources under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT), which applies to both major and area sources for HAP. These engines are considered existing RICE because they were manufactured prior to the area source applicability date of June 12, 2006. As existing non-emergency 2SLB stationary RICE located at an area source of HAP emissions, the units are subject to the requirements of Table 2d of this Subpart which include:

- Change oil and filter every 4,320 hours of operation or annually, whichever comes first, or utilize an oil analysis program;
- Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

The 173 hp natural gas-fired emergency generator is an existing affected source under the RICE

MACT. As an existing emergency spark ignition (SI) stationary RICE less than 500 hp located at an area source of HAP emissions, this engine is subject to the requirements of Table 2d of this Subpart which include:

- Change oil and filter every 500 hours of operation or annually, whichever comes first, or utilize an oil analysis program;
- Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

In accordance with 40 CFR §63.6640(f), this engine is limited to operating during:

- Emergency situations;
- Maintenance checks and readiness testing, not to exceed 100 hours per year; and
- Non-emergency situations, not to exceed 50 hours per year (those 50 hours are counted towards the 100 hours per year provided for maintenance and testing).

The boiler, fuel heater, and the water heater are not subject to 40 CFR Part 63, Subpart JJJJJ, Industrial, Commercial, and Institutional Boilers at Area Sources since these units are fired exclusively by natural gas. Natural gas-fired boilers are exempt from this Subpart in accordance with 40 CFR §63.11195(e), and hot water heaters are exempt from this Subpart in accordance with 40 CFR §63.11195(f).

Applicability: State Regulations

Although the compressor engines and emergency generator at the facility are fuel combustion sources, they are not subject to any particulate matter (as TSP) emission limitation of ADEM Admin. Code chap. 335-3-4 or any sulfur dioxide (SO₂) emission limitation of ADEM Admin. Code chap. 335-3-5 because they do not meet the definition of fuel burning equipment nor is the facility considered one of the process industries, general or specific. The compressor engines and emergency generator are, however, subject to the visible emissions standards of ADEM Admin. Code r. 335-3-4-.01(1), which states that no air emission source may emit particulate of an opacity greater than 20% (as measured by a six-minute average) more than once during any 60-minute period and at no time shall emit particulate of an opacity greater than 40% (as measured by a six-minute average). These units are fired exclusively with natural gas, and are expected to be able to comply with this standard.

Emission Testing and Monitoring

SNGC is required to certify on a semiannual basis that only natural gas was burned in the reciprocating engines as a method for monitoring compliance with the visible emission

requirements of ADEM Admin. Code r. 335-3-4-.01(1) since opacity would be negligible while combusting natural gas.

Compliance Assurance Monitoring (CAM)

Compressor Engine Nos. 1 and 2 do not use an active control device as defined in the CAM regulations to meet the applicable emission standards. As such, the facility is not subject to CAM requirements.

Recordkeeping and Reporting

As part of the Semiannual Monitoring Report, SNGC is required to include a statement addressing whether only natural gas was fired in the engines and emergency generator during the respective reporting period. In addition to certifying that only natural gas was fired in the emergency generator, SNGC is required to record the hours of operation for the emergency generator on a monthly and 12-month rolling total basis to ensure that SNGC operates the engine as emergency stationary RICE as specified by 40 CFR §63.6640(f). These records are required to be maintained in a permanent form suitable for inspection and made available upon request.

Recommendation

Based on the above analysis, I recommend that the Title V Major Source Operating Permit (211-0023) be renewed with the requirements noted above pending the resolution of any comments received during the 30-day public comment period and 45-day EPA review.



Brandon R. Cranford
Chemical Branch
Air Division

April 16, 2020
Date

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