

STATEMENT OF BASIS

Southern Natural Gas Company
York Compressor Station
Ward, Sumter County, Alabama
Facility No. 412-0013

This draft Title V Major Source Operating Permit (MSOP) 4th renewal is issued under the provisions of ADEM Admin. Code r. 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 issued on April 15, 2015, and is scheduled to expire on December 27, 2019. There have been no modifications to or additions of significant emission sources at this facility since the issuance of the 3rd renewal 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 9,160 hp GE MS-3002G natural gas-fired combustion turbines (Compressor Turbine Nos. 1 and 2) and two 260 hp 4-stroke, rich-burn natural gas-fired emergency engines (Emergency Generator Nos. 1 and 2). Insignificant emission sources at this station include one 4,905 gallon new oil storage tank, one 2,068 gallon used oil storage tank, one 3,000 gallon pipeline condensate tank, one natural gas-fired fuel heater, a cold-cleaning degreasing operation, space heaters, portable electric air compressor, and hot water heaters.

Applicability: Federal Regulations

Title V

This facility is a major source under Title V regulations because the potential emissions for nitrogen oxides (NO_x) and carbon monoxide (CO) exceed the 100 TPY major source threshold. It is not a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions are less than 10 TPY and the total HAP potential emissions are less 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 source categories; therefore, the applicable major source threshold is 250 TPY for criteria pollutants. The facility is a major source for PSD because the facility-wide potential NO_x emissions exceed 250 TPY. The two turbines underwent PSD review when their brake horsepower was increased in 1998, and each is limited to 53.0 lb/hr of NO_x.

NSPS

Although Compressor Turbine Nos. 1 and 2 were initially installed in 1965, they were modified in 1999 and became subject to 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(33)]; therefore, they have applicable NO_x and SO₂ emission limits. Performance testing has determined that each turbine is able to comply with each applicable NO_x standard. In order to determine compliance with the

standard for SO₂, SNGC utilizes an approved custom monitoring schedule for monitoring the sulfur content of the fuel.

The natural gas-fired emergency engines 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 date that these engines were manufactured (1997).

The compressors associated with Compressor Turbine Nos. 1 and 2 were installed prior to the August 23, 2011, applicability 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 York 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.

NESHAP Part 63

This facility is not a major source for HAP; therefore, the combustion turbines are not affected sources under 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines [Adopted by reference in ADEM Admin. Code r. 335-3-11-.06(102)].

The two 260 hp natural gas-fired emergency engines are existing affected sources under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (the RICE MACT). As existing emergency spark ignition (SI) stationary RICE <500 hp located at an area source of HAP emissions, these engines would be subject to the work practice 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 addition, these engines would be 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).

Applicability: State Regulations

Although the turbines and the emergency engines 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 turbines and the emergency engines would, however, be subject to the visible emissions requirements of ADEM Admin. Code r. 335-3-4-.01(1). Because the turbines and the emergency engines would be fired exclusively with natural gas, they would be expected to be able to comply with this standard.

Emission Testing and Monitoring

SNGC would be required to certify on a semiannual basis that only natural gas was burned in the two turbines and the two emergency 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.

Monitoring proposed for the Compressor Turbine Nos. 1 and 2 will be emissions testing for NO_x once per peak season (October – March) and once per off-peak season (April – September). However, if the operating time for a turbine during the off-peak season does not exceed 250 hours, then no emission testing would be required for that turbine during that season. The first emission testing conducted following the effective date of this renewal permit shall be conducted using the appropriate EPA Reference Method. Emission testing for the remainder of the permit term may be conducted using either the appropriate EPA Reference Method or an alternate method if approved in advance by the Air Division.

To monitor compliance with the SO₂ standard of 40 CFR Part 60, Subpart GG, SNGC would be required to monitor the sulfur content of the fuel on the custom monitoring schedule approved by the EPA.

No emission testing would be required for the two 260 hp emergency engines.

Compliance Assurance Monitoring (CAM)

Compressor Turbine Nos. 1 and 2 does 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 would be required to include a statement addressing whether only natural gas was fired in each unit during the respective reporting period. SNGC would be required to submit the results of all emission tests conducted to the Air Division

within 30 days of the actual completion of the test. SNGC would also be required to maintain records of the fuel sulfur content on-site in a form suitable for inspection.

In addition to certifying that only natural gas was fired in the emergency generator, SNGC would be required to record the hours of operation for the 260 hp emergency engines on a monthly and 12-month rolling total basis to ensure that SNGC operates this engine as an emergency stationary RICE as prescribed by 40 CFR §63.6640(f). In addition, SNGC shall report to the Air Division any failure to perform a work practice on the schedule required. The report shall be submitted within two working days of the deviation. These records would be required to be maintained in a permanent form suitable for inspection and be made available upon request.

Recommendation

Based on the above analysis, I recommend that the renewal Major Source Operating Permit (412-0013) be issued with the requirements above pending resolution of any comments received during a 30-day public comment period and a 45-day EPA review.



Brandon R. Cranford
Chemical Branch
Air Division

August 8, 2019
Date

11403 412-0013 119 08-27-2019 T5SOB BRC 4TH REN