STATEMENT OF BASIS
SOUTHERN NATURAL GAS COMPANY, LLC
ELMORE COMPRESSOR STATION
ELMORE, ELMORE COUNTY, ALABAMA
FACILITY NO. 205-0006

This proposed Title V Major Source Operating Permit (MSOP) renewal has been developed in accordance with 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 facility was originally constructed/began operations in 1951. The initial application for this renewal was received June 27, 2024, and the application was deemed complete on July 1, 2024. The initial MSOP was issued on December 28, 1999, and this is the fifth renewal. The current MSOP was issued on October 29, 2019, became effective on December 28, 2019, and is scheduled to expire on December 27, 2024.

The facility is located in Elmore County, which is currently listed attainment/unclassifiable with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Southern Natural Gas Company (SNGC) necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found at https://echo.epa.gov/ (Search using Facility ID AL0000000105100006).

Facility Operations

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 four natural gas-fired reciprocating engines: a 2,500 hp Cooper-Bessemer GMWA-10, 2-stroke lean-burn (Compressor Engine No. 7); a 5,000 hp Clark TCVD-10, 2-stroke lean-burn (Compressor Engine No. 9); a 2,050 hp Cooper-Bessemer GMVH-10C, 2-stroke lean-burn (Compressor Engine No. 10); a 1,650 hp Cooper-Bessemer GMVH-8C, 2-stroke lean-burn (Compressor Engine No. 11); and one 536 hp Caterpillar 4-stroke, lean-burn emergency generator engine (Emergency Generator Engine No. 1). Insignificant emission sources at this station include one 9,995 gallon lube oil storage tank, one 1,447 gallon hydraulic oil storage tank, one 596 gallon used oil storage tank, one 8,750 gallon pipeline condensate tank, four (4) 0.024 MMBtu/hr space heaters, one 500 gallon used oil tank, and hot water heaters.

Proposed Changes

There have been no modifications to or additions of significant emission sources at this facility since the issuance of the fourth renewal MSOP.

Permit History

The following is a history of previously issued permits for this facility:

The facility was originally constructed/began operations in 1951.

Issuance No./Permit No.	Issuance Date	Effective Date	Expiration Date	Amendments/ Modifications (Where Applicable)	PSD Significant Emission Rates Exceeded (Y/N)
Unpermitted 2,500 hp RICE (Grandfathered)	1967	--	--	--	Y
AP Z001 – 5000 hp RICE NO_x limits established for BACT	June 4, 1981	--	--	--	Y
AP Z002 – 1650 hp RICE NO_x, CO and VOC SMS limits	November 1, 1985	--	--	--	Y
Z003 - 2,050 hp to. AP NO_x, CO, and VOC SMS limits	November 1, 1985	--	--	--	Y
AP Z001 - modified 5,000 hp to include CO and VOC limits for BACT	March 2, 1998	--	--	--	Y
Initial MSOP	December 28, 1999	December 28, 1999	December 27, 2004	--	--
MSOP 1st Renewal	December 31, 2004	December 31, 2004	December 27, 2009	--	--
AP X002 – 536 hp Emergency Generator Engine	April 9, 2008	--	--	--	--
MSOP 2nd Renewal	December 22, 2009	December 28, 2009	December 27, 2014	--	N
MSOP 3rd Renewal	April 2, 2015	April 2, 2015	December 27, 2019	--	--
MSOP 4th Renewal	October 29, 2019	December 28, 2019	December 27, 2024	--	--

Plant-Wide Potential to Emit (PTE)

Pollutant	Potential Emissions (TPY)
PM	25.61
SO_2	0.31
NO_x	1212.71
CO	245.69
VOC	125.74
CO_2e	79,505.00
Formaldehyde	24.45
HAP > 10 TPY (by CAS)	39.22

Applicability: Federal Regulations

Title V

This facility is a major source under Title V regulations because the potential emissions for nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) exceed the 100 TPY major source threshold. It is also a major source of hazardous air pollutants (HAP) because individual HAP potential emissions are greater than 10 TPY (formaldehyde, CAS No. 50-00-0, has a potential to emit of 24.45 TPY) and the total HAP potential emissions are 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 source 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. Compressor Engine No. 7 was installed prior to the PSD applicability date of January 1977 (1967). Compressor Engine No. 9 is subject to applicable NO_x (165.35 lb/hr), CO (32.52 lb/hr), and VOC (14.33 lb/hr) emission limitations established as best available control technology (BACT). The engine was issued a PSD permit on June 4, 1981, for its initial construction. However, the engine underwent another PSD review for CO and VOC following emission testing which determined the engine was not able to achieve the PSD significant limits (100 TPY and 40 TPY, respectively). The PSD permit with the BACT limit for CO and VOC was issued on September 30, 1999. Compressor Engine No. 10 (Installed on November 1, 1985) is subject to applicable synthetic minor source emission limits of 13.56 lb/hr for NO_x, 7.32 lb/hr for CO and 2.71 lb/hr for VOC. In addition, Compressor Engine No. 11 (Installed on November 1, 1985) is also subject to applicable synthetic minor source emission limits of 10.91 lb/hr for NO_x, 5.82 lb/hr for CO, and 2.18 lb/hr for VOC. These limits for Compressor Engine Nos. 10 and 11 were established to maintain emissions below PSD significance levels.

New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (Subpart JJJJ) [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(88)]

Compressor Engine Nos. 7, 9, 10, and 11, and the Emergency Generator Engine No. 1 at this facility are not subject to this Subpart, based on the date that these engines were manufactured (1967, 1982, 1985, 1985, and 2007 respectively), all of which are prior to each unit's applicability date.

40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015 (Subpart OOOO) [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(91)]

The compressors associated with Compressor Engine Nos. 7, 9, 10, and 11 were each installed prior to the August 23, 2011, applicability date of Subpart OOOO; therefore, this facility is not subject to this Subpart.

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 and On or Before December 6, 2022 (Subpart OOOOa) [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(91)(a)]

The Elmore Compressor Station is considered a natural gas compressor facility and is potentially subject to 40 CFR Part 60, Subpart OOOOa. However, all equipment and processes potentially subject to this regulation were installed and/or modified prior to the applicability date, therefore, this facility is not subject to this Subpart.

40 CFR Part 60, Subpart OOOOb, Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After December 6, 2022 (Subpart OOOOb)

The Elmore Compressor Station is considered a natural gas compressor facility and is subject to 40 CFR Part 60, Subpart OOOOb. However, all equipment and processes potentially subject to this regulation were installed and/or modified prior to the applicability date, therefore, this facility is not subject to this Subpart.

National Emission Standards for Hazardous Air Pollutants (NESHAP/MACT)

40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ) [Adopted by reference in ADEM Admin. Code r. 335-3-11-.06(103)]

This facility is a major source for HAPs and operates four (4) 2-stroke lean-burn RICE (Compressor Engine Nos. 7, 9, 10, and 11) that were installed between 1967 and 1985. 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 (Subpart ZZZZ) [Adopted by reference in ADEM Admin. Code r. 335-3-11-.06(103)]. In accordance with 40 CFR §63.6590(b)(3), existing lean burn engines (2-stroke and 4-stroke) greater than 500 hp located at a major source of HAP do not have to meet the requirements of Subpart ZZZZ and Subpart A. An initial notification is also not required. Therefore, although these RICE are not excluded from the applicability of Subpart ZZZZ, there are no applicable requirements.

The Emergency Generator Engine No. 1 is also an affected source under the Subpart ZZZZ. Because its site rating exceeds 500 hp, 40 CFR §63.6590(b)(1)(i) specifies that except for the requirement to submit an initial notification, SNGC does not have to meet the requirements Subpart ZZZZ or Subpart A. SNGC's original application to construct this emergency engine satisfies this requirement. This emergency generator engine does not have to meet the requirements of Subpart ZZZZ. However, SNGC is required to record the hours of operation for this unit on a monthly and 12-month rolling total basis to ensure that the permittee operates the engine as an emergency stationary RICE as specified in 40 CFR §63.6640(f). No testing is required for the Emergency Generator Engine No. 1.

Mandatory Greenhouse Gas Reporting

40 CFR Part 98, Subpart A General Provision

Although this facility is not subject to a listed source category as defined in 40 CFR §98.2(a)(1) or (2), it is potentially subject to this rule in accordance with 40 CFR §98.2(a)(3) since the

aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hr or greater and the facility has the potential to emit 25,000 metric tons (27,558 TPY) of CO_2e or more per year from all stationary fuel combustion sources combined. SNGC must calculate greenhouse gas quantities according to the methodologies described in 40 CFR §98.2(c). SNGC would be required to maintain records of actual CO_2, CH_4, and N_2O emissions to determine the actual CO_2e emissions. If such emissions exceed the 25,000 metric tons per year threshold, then an annual report must be submitted no later than March 31 of each calendar year thereafter per 40 CFR §98.3. In accordance with 40 CFR §98.5, the annual report must be submitted electronically in accordance with the requirements of 40 CFR §98.4 (via EPA's Central Data Exchange). While this facility is required to report greenhouse gas emissions to EPA per 40 CFR Part 98, these requirements do not meet the definition of "applicable requirements" under 40 CFR 70.2 and ADEM Admin. Code r. 335-3-16-.01(1)(e). Therefore, the requirements of 40 CFR Part 98 are not required to be included in the Title V permit.

Applicability: State Regulations

ADEM Admin. Code r. 335-3-4-.01, "Control of Particulate Emissions: Visible Emissions"

Compressor Engine Nos. 7, 9, 10, and 11 and Emergency Generator Engine No. 1 are each subject to the State 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).

ADEM Admin. Code r. 335-3-4-.02, "Fugitive Dust and Fugitive Emissions"

This rule is applicable. However, all plant roads are paved or graveled. There are no raw materials, storage piles, products, etc. capable of generating fugitive dust at this facility. Therefore, additional specific requirements for fugitive dust are not necessary for this facility.

ADEM Admin. Code r. 335-3-4-.03, "Control of Particulate Emissions: Fuel Burning Equipment"

Although Compressor Engine Nos. 7, 9, 10, and 11 and Emergency Generator Engine No. 1 are fuel combustion sources, they are not subject to any particulate matter (as TSP) emission limitation of ADEM Admin. Code Chap. 335-3-4 because they do not meet the definition of fuel burning equipment and the facility is not considered one of the process industries, general or specific.

ADEM Admin. Code r. 335-3-5-.01, "Control of Sulfur Compound Emissions: Fuel Combustion"

Although Compressor Engine Nos. 7, 9, 10, and 11 and Emergency Generator Engine No. 1 are fuel combustion sources, they are not subject to any sulfur dioxide (SO_2) emission limitation of ADEM Admin. Code Chap. 335-3-5 because they do not meet the definition of fuel burning equipment nor is this facility considered one of the process industries, general or specific.

Emission Testing and Monitoring

SNGC is required to certify on a semiannual basis that only natural gas was burned in Compressor Engine Nos. 7, 9, 10, and 11 and Emergency Generator Engine No. 1 as a method for monitoring compliance with the visible emission requirements of ADEM Admin. Code r. 335-3-4-.01(1) since opacity is expected to be negligible while combusting natural gas.

To monitor compliance with the applicable BACT and SMS limits for NO_x, CO, and VOC for Compressor Engine Nos. 9, 10, and 11, emission testing is required twice per calendar year at a frequency of once per semiannual period (Jan 1st - Jun 30th and Jul 1st - Dec 31st), with a minimum of three calendar months elapsing between tests. 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 with a portable analyzer, if approved in advance by the Air Division.

No emission testing is required for the Emergency Generator Engine No. 1.

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 each unit during the respective reporting period as a method for monitoring compliance with the visible emission requirements of ADEM Admin. Code r. 335 3 4 .01(1). SNGC is required to submit the results of all emission tests conducted to the Air Division within 30 days of the actual completion of the test**,** unless stated otherwise in an applicable regulation.

SNGC is required to record the hours of operation for the Emergency Generator Engine No. 1 on a monthly and 12-month rolling total basis to ensure that the permittee operates the engine as an 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 be made available upon request.

In accordance with ADEM Admin. Code r. 335-3-16-.05(c)2(ii), all required records must be maintained in a permanent form suitable for inspection for a period of five years from the date of generation of each record and be made available upon request.

Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring (CAM), 40 CFR Part 64, applies to any pollutant-specific emission unit at a major source that is required to obtain an operating permit, in accordance with 40 CFR §64.5, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant.
- It uses a control device to achieve compliance with the applicable emission limit or standard.
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY of a criteria pollutant, 10 TPY of an individual HAP, or 25 TPY of total HAP.

Compressor Engine Nos. 7, 9, 10, and 11 do not use an active control device as defined in the CAM regulations to meet the applicable emission limitations. As such, the facility is not subject to CAM requirements.

Environmental Justice Screen

The Draft Permit contains emission limits based on state and federal regulations that are protective

of human health and the environment. In addition, the Department has robust public engagement that utilizes a number of tools, such as EPA's EJ Screen: Environmental Justice Screening and Mapping Tool, to ensure that local residents and stakeholders are provided a meaningful opportunity to participate in the permitting process.
(http://www.adem.alabama.gov/Moreinfo/pubs/ADEMCommunityEngagement.pdf).

Public Participation

The renewal of this Title V MSOP would require a 30-day public comment period and a 45-day EPA review period.

Recommendation

Based on the above analysis, I recommend that Southern Natural Gas Company, LLC's Title V Major Source Operating Permit (205-0006) be renewed with the requirements noted above, pending the resolution of any comments received during a 30-day public comment period and 45-day EPA review.

Brandon Cranford

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Date

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