

**STATEMENT OF BASIS  
SOUTHERN NATURAL GAS COMPANY  
MCCONNELLS COMPRESSOR STATION  
NORTHPORT, TUSCALOOSA COUNTY, ALABAMA  
FACILITY NO. 413-0028**

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 1948. The initial application for this renewal was received January 31, 2025, and the application was deemed complete on February 1, 2025. The initial MSOP was issued on August 7, 2000, and this is the fifth renewal. The current MSOP was issued on May 15, 2020, became effective on August 7, 2020, and is scheduled to expire on August 6, 2025.

The facility is located in Tuscaloosa 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 AL0000000112500028).

**Facility Operations**

Southern Natural Gas Company, LLC (SNGC) operates a compressor station for the transmission of pipeline natural gas. The significant sources of air pollutants at this facility are two 1,350 hp Cooper-Bessemer GMV-10-STF, 2-stroke, lean-burn (2SLB), natural gas-fired reciprocating internal combustion engines (RICE) (Emission Unit Nos. 001 and 002); two 1,360 hp Solar Saturn T-1302 natural gas-fired combustion turbines (Emission Unit Nos. 003 and 004); one 1,452 hp Solar Saturn T-1402 natural gas-fired combustion turbine (Emission Unit No. 005); one 1,530 hp Solar Saturn T-1300 natural gas-fired combustion turbine (Emission Unit No. 006); and one 225 hp Caterpillar G342, 4-stroke, rich-burn (4SRB) natural gas-fired emergency generator engine (Emission Unit No. 007). Insignificant emission sources at this facility include one 9,995 gallon lube oil storage tank; one 2,000 gallon oily water tank; one 1,462 gallon used oil storage tank; one 500 gallon condensate tank; one 1,000 gallon distillate tank; <0.5 MMBtu/hr space heaters; and one air compressor.

**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 facility was originally constructed/began operations in 1948.

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

<b>Issuance No./Permit No.</b>	<b>Limit(s) Established</b>	<b>Issuance Date</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>PSD SER Exceeded (Y/N)</b>
Unpermitted (3) 170 hp RICE and (2) 1,350 hp RICE	--	1948	--	--	N
AP X001 – Existing 2,500 hp Turbine	--	April 11, 1984	--	--	N
AP X002 – 2,500 hp Turbine (Never Constructed)	--	April 11, 1984	--	--	N
X003 – 1,500 hp RICE (Never Constructed)	--	June 26, 1989	--	--	N
AP X004-X005 – (2) 1,360 hp RICE	Established PSD SMS limits of 5.03 lb/hr of NO <sub>x</sub> for each unit and hourly operating limits of 7,743 hr/yr for each unit	November 12, 1992	--	--	N
AP X006 – 1,452 hp Turbine	Established PSD SMS limit of 7.64 lb/hr for NO <sub>x</sub>	July 13, 1995	--	--	N
AP X007 – 1,530 hp Turbine (Never Constructed)	--	May 29, 1996	--	--	N
AP X008 – 1,530 hp Turbine	PSD SMS limit of 8.13 lb/hr for NO <sub>x</sub>	August 21, 1998	--	--	Y
Initial MSOP	--	August 7, 2000	August 7, 2000	August 6, 2005	--
MSOP 1st Renewal	--	July 12, 2005	August 7, 2005	August 6, 2010	--
MSOP 2nd Renewal (Rolled in 225 hp Emergency Engine)	--	July 26, 2010	August 7, 2010	August 6, 2015	N
MSOP 3rd Renewal	--	August 12, 2015	August 12, 2015	August 6, 2020	--
MSOP 4 <sup>th</sup> Renewal	--	May 15, 2020	August 7, 2020	August 6, 2020	--

### **Plant-Wide Potential to Emit (PTE)**

<b>Pollutant</b>	<b>Potential Emissions (TPY)</b>
PM	10.12
SO <sub>2</sub>	1.55
NO <sub>x</sub>	1,114.90
CO	83.99
VOC	26.38
CO <sub>2</sub> e	60,559.79
HAP $\geq$ 10 TPY (by CAS)	N/A
Formaldehyde	8.63
HAP (Total)	14.32

### **Applicability: Federal Regulations**

#### **Title V**

This facility is a major source under Title V regulations because the potential emissions for nitrogen oxides (NO<sub>x</sub>) exceed the 100 TPY major source threshold. The facility is not a major source of Hazardous Air Pollutants (HAP) because individual HAP potential emissions (formaldehyde, 8.63 TPY) 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's operations are not one of the 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 NO<sub>x</sub> emissions exceed 250 TPY, but SNGC does not hold any PSD permits. The two 1,350 hp reciprocating engines (Emission Unit Nos. 001 and 002) were installed prior to the PSD applicability date of January 1977, and have not been modified since installation. Therefore, there are no emission limits applicable to these two engines under PSD regulations.

To remain below the significance emission rate for NO<sub>x</sub>, synthetic minor source (SMS) emission limits were established for the two 1,360 hp turbines (Emission Unit Nos. 003 and 004); the one 1,452 hp turbine (Emission Unit No. 005); and the one 1,530 hp turbine (Emission Unit No. 006) when each unit was installed. Emission Unit Nos. 003 and 004 are each subject to a NO<sub>x</sub> emission limitation of 5.03 lb/hr, Emission Unit No. 005 is subject to a NO<sub>x</sub> emission limitation of 7.64 lb/hr, and Emission Unit No. 006 is subject to a NO<sub>x</sub> emission limitation of 8.13 lb/hr. In addition, Emission Unit Nos. 003 and 004 are each subject to an hourly operating limitation of no more than 7,743 hours during any consecutive 12-month period.

#### **New Source Performance Standards (NSPS)**

40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (Subpart GG)  
[Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(33)]

Compressor Turbine Nos. 4 through 7 (Emission Unit Nos. 003 – 006) were installed after the Subpart GG, applicability date of October 3, 1977; therefore, they are each subject to this Subpart. Therefore, each of these units 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)]. Performance testing in accordance with 40 CFR §60.335 has demonstrated the turbines are able to comply with the applicable NO<sub>x</sub> emission standard (150 ppmvd at 15% O<sub>2</sub>) as required by 40 CFR §60.332(a)(2). In order to demonstrate compliance with the applicable SO<sub>2</sub> emission standard (150 ppmvd at 15% O<sub>2</sub>) as required by 40 CFR §60.333, SNGC utilizes an approved custom monitoring schedule for monitoring the sulfur content of the fuel as specified in 40 CFR §60.334(h)(4).

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. 1 and 2 (Emission Unit Nos. 001 and 002), and the emergency generator engine (Emission Unit No. 007) are not subject to Subpart JJJJ, based on the date each of these engines were manufactured (1948, 1948, and 1984, respectively), all of which are prior to each unit's applicability date.

40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines (Subpart KKKK) [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(89)]

This Subpart applies to stationary gas turbines with a heat input at a peak load equal to or greater than 10 MMBtu/hr and have commenced construction, modification, or reconstruction after February 18, 2005. This regulation is not applicable to Compressor Turbine Nos. 4 through 7 (Emission Unit Nos. 003 – 006) because these units were installed and modified prior to 2005.

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. 1 and 2 (Emission Unit Nos. 001 and 002) and Compressor Turbine Nos. 4 through 7 (Emission Unit Nos. 003 - 006) were 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)]

All equipment and processes at this facility were installed or modified prior to the September 18, 2015, applicability date of Subpart OOOOa; 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)

All equipment and processes at this facility were installed or modified prior to the December 6, 2022, applicability date of Subpart OOOOb; therefore, this facility is not subject to this Subpart.

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

40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (Subpart YYYY) [Adopted by reference in ADEM Admin. Code r. 335-3-11-.06(102)]

This facility is not a major source of HAP; therefore, the combustion turbines are not affected sources under Subpart YYYY.

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)]

The two 1,350 hp reciprocating engines (Emission Unit Nos. 001 and 002) are each considered affected sources under Subpart ZZZZ, which applies to both major and area sources for HAP. These engines are each considered an existing, non-emergency, 2SLB, natural gas-fired RICE greater than 500 hp located at an area source for HAP emissions.

#### Operation Limitations

In accordance with 40 CFR §63.6603, 40 CFR §63.6640 and Item No. 6 of Table 2d to Subpart ZZZZ, SNGC is required to perform the following work practice requirements for Emission Unit Nos. 001 and 002:

- Change oil and filter every 4,320 hours of operation or within 1 year plus 30 days of the previous change, whichever comes first, or utilize an oil analysis program;
- Inspect spark plugs every 4,320 hours of operation or within 1 year plus 30 days of the previous inspection, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 4,320 hours of operation or within 1 year plus 30 days of the previous inspection, whichever comes first, and replace as necessary.

#### Testing Requirements

There are no emission testing requirements for these two RICE (Emission Unit Nos. 001 and 002) under Subpart ZZZZ.

#### Continuous Compliance Monitoring

SNGC is required to operate and maintain these two RICE (Emission Unit Nos. 001 and 002) in a manner consistent with safety and good air pollution control practices for minimizing emissions, as required by Subpart ZZZZ.

#### Notifications

There are no notification requirements for these two RICE (Emission Unit Nos. 001 and 002) under Subpart ZZZZ.

#### Reports

There are no reporting requirements for these two RICE (Emission Unit Nos. 001 and 002) under Subpart ZZZZ.

### Recordkeeping

The recordkeeping requirements are outlined in Table 6 to Subpart ZZZZ to show continuous compliance. SNGC is required to develop a maintenance plan and keep records of the maintenance conducted on these two RICE (Emission Unit Nos. 001 and 002).

The 225 hp emergency engine (Emission Unit No. 007) is an existing affected source under Subpart ZZZZ, which applies to both major and area sources for HAP. This engine is considered an existing, emergency, 4SRB, spark ignition (SI), natural gas-fired RICE less than 500 hp located at an area source for HAP emissions.

### Operation Limitations

In accordance with 40 CFR §63.6603 and Item No. 5 of Table 2d to Subpart ZZZZ, SNGC is required to perform the following work practice requirements for the 225 hp emergency engine (Emission Unit No. 007):

- Change oil and filter every 500 hours of operation or within 1 year plus 30 days of the previous change, whichever comes first, utilize an oil analysis program;
- Inspect spark plugs every 1,000 hours of operation or within 1 year plus 30 days of the previous inspection, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 500 hours of operation or within 1 year plus 30 days of the previous inspection, whichever comes first, and replace as necessary.

In accordance with 40 CFR §63.6640(f), to retain the emergency classification, 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).

### Continuous Compliance Monitoring

In accordance with 40 CFR §63.6625(e)(3) and Item 9 of Table 6 to Subpart ZZZZ, SNGC is required to operate and maintain the 225 hp emergency engine (Emission Unit No. 007) according to the manufacturer's emission related operation and maintenance instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. 40 CFR §63.6625(f) requires the installation of a non-resettable hour meter on the engine if one is not already installed.

### Testing Requirements

There are no emission testing requirements for the emergency RICE (Emission Unit No. 007) under Subpart ZZZZ.

### Notifications

SNGC shall report to the Air Division any failure to perform a work practice on the schedule required, including instances when the work practice standard was not performed due to emergency operation or unacceptable risk under a federal, state, or local law. The Permittee shall submit the report within two working days of the deviation and shall provide an explanation as to why the work practice requirement was not performed.

### Reports

SNGC shall submit a Semiannual Monitoring Report, as required by General Permit Proviso No. 21(a), no later than 60 days after the end of each semiannual reporting period. The report shall include a statement addressing whether only natural gas was fired in this unit during the reporting period. In addition, the permittee shall provide the monthly and 12-month rolling total of the hours of operation that were calculated during the reporting period for this unit as part of the Semiannual Monitoring Report.

### Recordkeeping

The Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR Part 63, Subparts A and ZZZZ for this unit recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on-site. The remaining 3 years of data may be retained off-site.

## **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<sub>2</sub>e 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<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions to determine the actual CO<sub>2</sub>e 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"

The compressor engines, turbines, and emergency engine 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 the compressor engines, turbines, and emergency engine are each 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 the compressor engines, turbines, and emergency engine are each fuel combustion sources, they are not subject to any sulfur dioxide (SO<sub>2</sub>) 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 Emission Unit Nos. 001- 007 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 SMS emission limits for NO<sub>x</sub> for Emission Unit Nos. 003 – 006, emissions testing is required 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 is required for that turbine during that season. SNGC requested the peak/off peak season schedule to ensure higher load testing during the summer season. The first emissions testing conducted for each unit following the effective date of this renewal permit shall be conducted using the approved EPA Reference Method. Emissions testing for the remainder of the permit term may be conducted using the approved EPA Reference Method.

In order to demonstrate compliance with the applicable SO<sub>2</sub> emission standard (150 ppmvd at 15% O<sub>2</sub>) for the turbines as required by 40 CFR §60.333, SNGC utilizes an approved custom monitoring schedule for monitoring the sulfur content of the fuel as specified in 40 CFR §60.334(h)(4).

No emission testing is required for the Emergency Generator Engine (Emission Unit No. 007).

**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.

In addition to certifying that only natural gas was fired in Emission Unit Nos. 003, 004, and emergency generator (Emission Unit No. 007), SNGC is required to record the hours of operation for these units on a monthly and 12-month rolling total basis to ensure that the permittee does not exceed the 7,743 hour limitation for Emission Unit Nos. 003 and 004 each. These records are required to be maintained in a permanent form suitable for inspection and be made available upon request.

SNGC is required to record the hours of operation for the Emergency Generator Engine No. 1 on a calendar year 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.

### **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 Turbine Nos. 4 - 7 EU Nos. 003-006) 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.

### **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 (413-0028) 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

July 17, 2025  
Date

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