

STATEMENT OF BASIS

Transcontinental Gas Pipe Line Company, LLC
Station 105
Rockford, Coosa County, Alabama
Facility No. 306-0009

This proposed Major Source Operating Permit (MSOP) 4th 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 issued on May 27, 2015, underwent a significant modification on July 3, 2018, in order to incorporate Air Permit Nos. X006 and X007 [Emission Unit Nos. 006 (Mainline Unit No. 4) and 007 (Emergency Auxiliary Unit No. 2)], and is scheduled to expire on March 14, 2020.

Transcontinental Gas Pipe Line Company, LLC (Transco) operates a compressor station for the transmission of pipeline natural gas. The significant sources of air pollutants at this facility are two (2) 16,245 hp Solar Mars T15000S natural gas-fired turbines (Mainline Unit (MLU) Nos. 1 and 2), one (1) 16,448 hp Solar Mars T15000S natural gas-fired turbine (MLU 3), one (1) 20,535 hp Solar Titan 130-20502S, natural gas-fired turbine (MLU 4), one (1) 515 hp Caterpillar G3412 4-stroke, lean burn (4SLB) natural gas-fired emergency reciprocating engine [Emergency Auxiliary Generator (AUX) Unit No. 1], and one (1) 1,060 hp GE Waukesha P48GL 4SLB, natural gas-fired emergency engine (AUX 2). Insignificant emission sources at this station include four (4) gas starters, lube oil vents, and pipeline blowdowns.

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 do not exceed 10 TPY, and the total HAP potential emissions do not exceed 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. The facility is a major source for PSD because the facility-wide potential emissions of NO_x and CO, each exceed 250 TPY.

Mainline Unit Nos. 1, 2, and 3 each have NO_x and CO emission limitations that were established at the time of their installations (1997, 2000, and 2003, respectively) in order to avoid a PSD review.

Emergency Unit No. 1 was installed in 1997, with a 1,000 hour per year operational limitation, but required no additional limitations to avoid PSD review.

Because the addition of Mainline Unit No. 4 and Emergency Auxiliary Unit No. 2 in 2017 were

not considered major modifications under PSD, this action did not require Transco to obtain a PSD permit.

MACT

National Emission Standards for Hazardous Air Pollutants (NESHAP) –Subpart ZZZZ

The stationary reciprocating internal combustion engines (RICE) at the facility 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). Under this subpart, the Emergency Auxiliary Unit No. 1 is classified as an existing 4SLB RICE located at an area source of HAP. In accordance with 40 CFR §63.6595(a)(1), Transco does have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and Subpart A for this RICE.

According to 40 CFR §63.6603, an existing stationary RICE located at an area source of HAP emissions must comply with the requirements in Table 2d to this subpart that apply.

According to Table 2d, Item 5, existing emergency SI RICE are subject to the following work practice requirements:

- Change oil and filter every 500 hours of operation or annually, whichever comes first; or participate in the oil analysis program as allowed by 40 CFR §63.6625(j);
- 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, this engine will 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)

According to Tables 4 and 5 of the subpart, no initial or subsequent performance testing is required for this emergency engine. 40 CFR §63.6625(e) and Table 6, Item 9, require this unit be operated and maintained according to the manufacturer's written instructions or develop a 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 if one is not already installed.

Emergency Auxiliary Unit No. 2 is considered a new affected source since it was constructed after the June 12, 2006, applicability date. According to 40 CFR §63.6590(c), any new spark ignition stationary RICE located at an area source of HAP emissions must meet the requirements of the

RICE MACT by meeting the requirements of 40 CFR Part 60, Subpart JJJJ. No further requirements apply to the emergency generator under Subpart ZZZZ.

NESHAP –Subpart YYYYY

This facility is not a major source of HAP emissions; therefore, none of the combustion turbines at the facility are affected sources under 40 CFR Part 63, Subpart YYYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (the Combustion Turbine MACT)[Adopted by reference in ADEM Admin. Code r. 335-3-11-.06(102)].

NSPS

New Source Performance Standards (NSPS) –Subpart GG

Mainline Unit Nos. 1, 2, and 3 were manufactured after the 40 CFR Part 60, Subpart GG, applicability date of October 3, 1977; therefore, they are subject to Subpart GG, Standards for Stationary Gas Turbines [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(33)] and have applicable NOx and SO₂ emission limits. Performance testing for each turbine demonstrated that each unit can comply with the applicable NOx standard. Transco certifies the fuel burned in the units meet the definition of natural gas by maintaining a current tariff sheet specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less as allowed by 40 CFR §60.334(h)(3)(i) to demonstrate compliance with the SO₂ standard.

NSPS –Subpart KKKK

On July 6, 2006, EPA promulgated 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(89)]. Mainline Unit Nos. 1, 2, and 3 are not subject to this subpart since they were not constructed, reconstructed, or modified after the February 18, 2005, applicability date for this standard.

Since Mainline Unit No. 4 has a heat input at peak load greater than 10 MMBtu/hr and was constructed in 2017, after the February 18, 2005, applicability date for this standard, it is subject to this subpart. It is classified as a new turbine firing natural gas and with a heat input at peak load between 50 MMBtu/hr and 850 MMBtu/hr. Performance testing for this turbine demonstrated that it can comply with the applicable NOx standard. Transco certifies the fuel burned in the unit meets the definition of natural gas by maintaining a current tariff sheet specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less as allowed by 40 CFR §60.4365(a) to demonstrate compliance with the SO₂ standard.

NSPS –Subpart JJJJ

On January 18, 2008, EPA promulgated 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)].

40 CFR §60.4230(a)(4)(iv) states that stationary SI ICE are subject to this subpart if construction commences after June 12, 2006, and the SI ICE is manufactured on or after January 1, 2009, for

emergency engines with a maximum engine power greater than 19 KW (25 hp). Emergency Auxiliary Unit No. 1 was constructed prior to the applicability date for this subpart, therefore it is not subject to this rule. Because Emergency Auxiliary Unit No. 2 was ordered and manufactured after January 1, 2009, it is subject to this subpart. It has applicable NO_x, CO, and VOC emission limits. Performance testing for this unit demonstrated that it can comply with the applicable standards.

NSPS –Subpart OOOO

The compressors associated with Mainline Unit Nos. 1-3 commenced construction 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 Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015 [Adopted by reference in ADEM Admin. Code r. 335-3-10-.02(91)]; therefore, these units are not subject to this subpart.

The compressor associated with Mainline Unit No. 4 commenced construction on May 14, 2015. Therefore, this unit is a potential affected source under this subpart. However, since the centrifugal compressor does not employ wet seals and is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment, it is not subject to this subpart.

NSPS –Subpart OOOOa

Compressor Station 105 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 commenced construction or were modified prior to the applicability date, therefore, this facility is not subject to this subpart.

Applicability: State Regulations

Although the reciprocating engines and turbines at this 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 this facility considered one of the process industries, general or specific. The engines and turbines would, however, be subject to the visible emissions standards of ADEM Admin. Code r. 335-3-4-.01(1). Since they are fired exclusively with natural gas, they would be expected to be able to comply with this standard.

NO_x SIP Call-Phase II (ADEM Admin. Code r. 335-3-8-.04)

This facility operates IC engines and is located in Coosa County, which is one of the affected counties under the NO_x SIP Call Phase II Rule. However, this facility has no engines that meet the Rule's definition of a large IC engine.

Emission Testing and Monitoring

Transco would be required to certify on a semiannual basis that only natural gas was burned in all units as a method for monitoring compliance with the visible emission requirements of ADEM Admin. Code r. 335-3-4-.01(1) because opacity would be negligible while combusting natural gas.

To monitor compliance with the applicable synthetic minor source NO_x and CO emission limits for Mainline Unit Nos. 1, 2, and 3, emission testing would be required twice per calendar year at a frequency of once per semiannual period (Jan 1st-Jun 30th and Jul 1st-Dec 31st) during which a unit operates for the purposes of production (i.e. the compression/transmission of natural gas), with a minimum of three (3) calendar months elapsing between tests. The first emissions test conducted following the issuance of this renewal permit shall be conducted using an approved US EPA Reference Method or an alternate method if approved in advance by the Air Division. If results from the performance test are less than or equal to 75% of the emission limit, then the frequency of subsequent performance tests may be reduced from a semiannual to an annual basis. If the results of any subsequent performance test exceed 75% of the emission limit, then semiannual performance testing must resume until the unit shows compliance for two consecutive testing events demonstrating emissions are less than or equal to 75% of the emission limit, at which time annual testing may resume. After the first emissions test conducted following the issuance of this renewal permit, no periodic monitoring testing will be required if a unit does not operate for production purposes during the semiannual or annual testing period, whichever applies.

To determine compliance with the NO_x standard in 40 CFR Part 60, Subpart KKKK, for Mainline Unit No. 4, Transco shall conduct NO_x performance tests on an annual basis. 40 CFR §60.4340(a) states that if NO_x emission results from the initial performance test are less than or equal to 75% of the NO_x emission limit, then the frequency of subsequent performance tests may be reduced to once every two years. If the results of any subsequent performance test exceed 75% of the NO_x emission limit, then annual performance testing must resume. Transco would also be required to perform subsequent emission testing once per calendar year during which a unit operates for the purposes of production (i.e. the compression/transmission of natural gas). The subsequent annual emission testing may be conducted using either an approved EPA Reference Method or with a portable analyzer. Periodic monitoring for the proposed turbine may be conducted concurrently with the annual or biannual EPA Reference Method test that is required by 40 CFR Part 60, Subpart KKKK. After the first emissions test conducted following the issuance of this renewal permit, no periodic monitoring will be required if a unit does not operate for production purposes during the annual testing period.

To determine compliance with the SO₂ standard in 40 CFR Part 60, Subpart GG, for Mainline Unit Nos. 1, 2, and 3, and the SO₂ standard in 40 CFR Part 60, Subpart KKKK, for Mainline Unit No. 4, Transco shall continue to demonstrate the fuel meets the definition of natural gas in 40 CFR §60.331(u) as per Transco's FERC Natural Gas Tariff.

To determine compliance with the NO_x, CO, and VOC standard in 40 CFR Part 60, Subpart JJJJ, for Emergency Auxiliary Unit No. 2, Transco shall conduct NO_x, CO, and VOC performance tests every 8,760 hours of operation or every three years, whichever comes first. The subsequent annual emissions test may be conducted using either an approved EPA Reference Method or with a portable analyzer. Periodic monitoring for the purposes of Title V may be conducted concurrently

with the EPA Reference Method test that is required by 40 CFR Part 60, Subpart JJJJ. After the first emissions test conducted following the issuance of this renewal permit, no periodic monitoring is required if a unit does not operate for production purposes during the annual testing period.

Recordkeeping and Reporting

As part of the Semiannual Monitoring Report, in addition to the recordkeeping and reporting required to comply with 40 CFR Part 63, Subpart ZZZZ for Emergency Auxiliary Unit No. 1, and with 40 CFR Part 60, Subpart JJJJ for Emergency Auxiliary Unit No. 2, Transco would be required to include a statement addressing whether only natural gas was fired in each unit during the respective reporting period. Transco would also be required to include a statement addressing whether a unit operated for production purposes during the respective reporting period. Transco 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. Transco would be required to maintain the most current fuel tariff sheet on-site in a form suitable for inspection.

Compliance Assurance Monitoring (CAM)

None of the individual emission units at the facility have the potential to emit greater than 100 TPY of any criteria pollutant or employ an active control device as defined in the CAM regulations. As such, the facility is not subject to CAM requirements.

Public Notice

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

Recommendation

I recommend that Transcontinental Gas Pipe Line's Title V MSOP be renewed with the requirements noted above pending the resolution of any comments received during the 30-day public comment period and the EPA 45-day review.

Andrea Sellers

Andrea Sellers
Chemical Branch
Air Division

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Date

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