STATEMENT OF BASIS
TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
COMPRESSOR STATION 85
BUTLER, CHOCTAW COUNTY, ALABAMA
FACILITY/PERMIT NO. 101-0021

The proposed renewal to the Title V Major Source Operating Permit (MSOP) 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.

Transcontinental Gas Pipe Line Company, LLC (Transco) Compressor Station 85 (St. 85) was originally constructed/began operations in 2010. This is the second renewal of the MSOP. The current MSOP was issued on January 22, 2020, became effective on May 5, 2020, underwent a significant modification on September 27, 2023, and is scheduled to expire on May 4, 2025. Per ADEM Admin Code r. 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. Based on this rule, the application for renewal was due to the Department no later than November 4, 2024, but no earlier than November 4, 2023. An application for this permit renewal was received by the Department on October 30, 2024, and deemed complete on October 30, 2024.

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

There are no current or ongoing enforcement actions against Transco 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 AL0000000102300021).

Facility Operations

Transcontinental Gas Pipe Line Company, LLC (Transco) operates a compressor station for the transmission of natural gas (SIC 4922) located in Butler, Choctaw County. Natural gas enters the facility and compressors boost the pressure of the gas for transmission in the pipeline downstream of the facility. The gas compressors are driven by stationary reciprocating internal combustion engines and a stationary natural gas-fired turbine. All yard piping, including the pigging and filtering equipment, and most of the other equipment in natural gas service (e.g. compressors, engine fuel gas systems, and gas meters) must be depressurized (blown down) during maintenance. Most venting activities are intermittent and only performed during scheduled maintenance-related activities and upset/emergency situations. Significant sources of air pollutants at this facility include:

Emission Unit Nos. 001 – 002: Two (2) 4,735 hp Caterpillar G3616 TALE 4-stroke, lean-burn (4SLB), spark ignition, natural gas-fired reciprocating engines (RICE), each equipped with an oxidation catalyst (Mainline Unit Nos. 1 and 2);

Emission Unit No. 003: One (1) 8,180 hp Caterpillar G16CM34 4SLB, spark ignition, natural gas-fired RICE equipped with an oxidation catalyst (Mainline Unit No. 3);

Emission Unit Nos. 004 – 005: Two (2) 800 hp Dresser Waukesha L36GL 4SLB, spark ignition, natural gas-fired, emergency engines (Emergency Unit Nos. 1 and 2); and

Emission Unit No. 006: One (1) 20,696 hp Solar Titan 130-20502S natural gas-fired combustion turbine equipped with SoLoNOx technology (Mainline Unit No. 4).

Insignificant emission sources at this facility include degreasers, pigging activities, pipeline blowdowns, and storage tanks.

Proposed Changes

The current MSOP underwent a significant modification on September 27, 2023, in order to incorporate the requirements of 40 CFR Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (Subpart YYYY) for Emission Unit No. 006, the 20,696 hp Solar Titan 130-20502S natural gas-fired combustion turbine equipped with SoLoNOx technology (Mainline Unit No. 4).

Permit History

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

Issuance No./Permit No.	Issuance Date	Effective Date	Expiration Date	Amendments/ Modifications (Where Applicable)	PSD SERs Exceeded (Y/N)
SMOP[1] X001 - MLU 1 - (new) - NO_x, CO, VOC, & formaldehyde Title V SMS[2] emission limits established	August 28, 2009	--	--	--	N/A
SMOP X002 - MLU 2 - (new) - NO_x, CO, VOC, & formaldehyde Title V SMS emission limits established	August 28, 2009	--	--	--	N/A
SMOP X003 - EMRG 1 - (new) - NO_x, CO, VOC, & hours Title V SMS emission limits established	August 28, 2009	--	--	--	N/A
SMOP X004 - MLU 3 - (new) - NO_x, CO, & VOC PSD SMS emission limits established, formaldehyde Title V SMS emission limit established	April 16, 2010	--	--	--	N
AP[3] X005 - EMRG 2 - (new) - NO_x, CO, VOC, & hours PSD SMS emission limits established	April 16, 2010	--	--	--	N
AP X006 - MLU 1 - redesignate facility status from area source of HAP to major source of HAP-NO_x, CO, & VOC PSD SMS emission limits established	March 2, 2012	--	--	--	N
AP X007 - MLU 2 - redesignate facility status from area source of HAP to major source of HAP-NO_x, CO, & VOC PSD SMS emission limits established	March 2, 2012	--	--	--	N

AP X008 - MLU 3 - redesignate facility status from area source of HAP to major source of HAP-NO_x, CO, & VOC PSD SMS emission limits established	March 2, 2012	--	--	--	N
AP X009 - EMRG 1 - redesignate facility status from area source of HAP to major source of HAP-NO_x, CO, VOC, & hours PSD SMS emission limits established	March 2, 2012	--	--	--	N
AP X010 - EMRG 2 - redesignate facility status from area source of HAP to major source of HAP-NO_x, CO, VOC, & hours PSD SMS emission limits established	March 2, 2012	--	--	--	N
AP X011 - MLU 4 - (new)	October 29, 2013	--	--	Administrative Amendment - May 29, 2014 - to remove all but initial notification requirements of 40 CFR Part 63, Subpart YYYY	N
Initial Title V MSOP	May 5, 2015	May 5, 2015	May 4, 2020	Significant Modification - September 27, 2016 - incorporate requirements of Air Permit No. X011 for MLU 4	--
1st Title V MSOP Renewal	January 22, 2020	May 5, 2020	May 4, 2025	Significant Modification - September 27, 2023 - incorporate requirements of 40 CFR Part 63, Subpart YYYY for MLU 4	--

[1]SMOP = Synthetic Minor Operating Permit
[2]SMS = Synthetic Minor Source
[3]AP = Air Permit

Plant-Wide Potential to Emit (PTE)

Pollutant	PTE (TPY)
$PM/PM_{10}/PM_{2.5}$	10.38
NO_x	153.90
CO	144.40
SO_2	2.64
VOC	147.37
50000 (Formaldehyde)	28.71
Total HAP	35.69
CO_2e	157,258.00

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) each exceed the 100 TPY major source threshold. It is also a major source of Hazardous Air Pollutants

(HAP) because individual HAP potential emissions exceed 10 TPY (formaldehyde PTE ~28.71 TPY) and the total HAP potential emissions exceed 25 TPY (PTE ~35.69 TPY).

Prevention of Significant Deterioration (PSD)

This facility is located in an attainment area for all criteria pollutants. The facility operations are not one of the 28 major source categories; therefore, the applicable major source threshold is 250 TPY. Transco is a synthetic minor source under PSD regulations because the facility-wide potential emissions are below 250 TPY for each regulated criteria pollutant. Mainline Unit Nos. 1 and 2 were installed in 2010, and each unit is subject to a synthetic minor source emission limitation for NO_x (6.79 lb/hr), CO (9.47 lb/hr), and VOC (6.26 lb/hr) that were each established at the respective time of their installation to remain below the PSD major source threshold of 250 TPY for criteria pollutants. Mainline Unit No. 3 was installed in 2011, and is subject to a synthetic minor source emission limit for NO_x (11.72 lb/hr), CO (3.79 lb/hr), and VOC (10.82 lb/hr) that were each established at the time of its installation to remain below the PSD major source threshold of 250 TPY for criteria pollutants. Mainline Unit No. 4 was installed in 2015, and is not subject to any synthetic minor source emission limits because its proposed installation was considered a minor modification not requiring a PSD review. Emergency Unit Nos. 1 and 2 were installed in 2010 and 2011, respectively, and each unit is subject to a synthetic minor source emission limitation for NO_x (3.53 lb/hr), CO (5.29 lb/hr), and VOC (1.76 lb/hr) that were each established at the time of their installation to remain below the PSD major source threshold of 250 TPY for criteria pollutants. Emergency Unit Nos. 1 and 2 are each also subject to an operational limitation of 500 hours operation during any 12-month period that was established at the time of their installation to remain below the PSD major source threshold of 250 TPY for criteria pollutants.

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)]

In accordance with 40 CFR §60.4230(a)(4)(i), Mainline Unit Nos. 1-3 are each subject to this Subpart since they commenced construction (date ordered) after June 12, 2006, and were manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 hp. They are each classified as a non-emergency spark ignition (SI) natural gas internal combustion engine (ICE) greater than or equal to 500 hp.

In accordance with 40 CFR §60.4230(a)(4)(iv), Emergency Unit Nos. 1 and 2 are each subject to this Subpart since they commenced construction (date ordered) after June 12, 2006, and were manufactured on or after January 1, 2009, the applicability dates for this Subpart. They are each classified as an emergency SI ICE greater than or equal to 130 hp.

Emission Limitations

Subpart JJJJ regulates emissions of NO_x, CO, and VOC. In accordance with 40 CFR §60.4233(e) and Table 1 to Subpart JJJJ, Mainline Unit Nos. 1-3 and Emergency Unit Nos. 1 and 2 are each subject to a NO_x emission limit of 2.0 g/hp-hr or 160 ppmvd at 15% O_2, a CO emission limit of 4.0 g/hp-hr or 540 ppmvd at 15% O_2, and a VOC emission limit of 1.0 g/hp-hr or 86 ppmvd at 15% O_2. In accordance with 40 CFR §60.4234, Transco must operate and maintain the mainline engines and the emergency engines in a manner that meets these emission standards over the entire

life of each engine.

Compliance Requirements

Transco demonstrates compliance with the NO_x, CO, and VOC emission limits through performance testing (see *Testing Requirements* section below). According to 40 CFR §60.4243(b)(2)(ii), because the stationary SI ICE are greater than 500 hp, Transco must keep a maintenance plan and records of maintenance conducted on Mainline Unit Nos. 1-3 and Emergency Unit Nos. 1 and 2, and must, to the extent practicable, maintain and operate the engines in a manner consistent with good air pollution control practices for minimizing emissions.

40 CFR §60.4243(d) states Transco is limited to operating Emergency Unit Nos. 1 and 2 for the purpose of maintenance checks and readiness testing no longer than 100 hours per year, each. Transco may operate each emergency engine up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited.

40 CFR §60.4243(e) states owners and operators of emergency stationary SI natural gas fired engines may operate the engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR §60.4233.

Emergency Unit Nos. 1 and 2 are each equipped with a non-resettable hour meter as required by 40 CFR §60.4237(a).

Testing Requirements

Mainline Unit Nos. 1-3 and Emergency Unit Nos. 1 and 2 are all non-certified, so in accordance with 40 CFR §60.4243(b)(2)(ii), Transco is required to conduct an initial performance test for NO_x, CO, and VOC within 180 days of startup while operating within 10% of 100% peak load and subsequent performance tests every 8,760 hours of operation or every three years, whichever comes first. Performance test requirements are outlined in 40 CFR §60.4244. The most recent performance testing conducted on Mainline Unit No. 1 on November 14, 2016, demonstrated compliance with each of the applicable standards. Mainline Unit No. 1 has been out of service since 2018 and will be tested upon return to service. The most recent performance testing conducted on Mainline Unit Nos. 2 and 3 on October 17 and 18, 2024, respectively, demonstrated each unit to be in compliance with each of the applicable standards. The most recent performance testing conducted on Emergency Unit Nos. 1 and 2 on October 19, 2023, demonstrated each unit to be in compliance with each of the applicable standards.

Notification, Reports, and Records

40 CFR §60.4245(a)(1) requires that owners and operators of all stationary SI ICE that are subject to this Subpart keep records of all notifications submitted and all documentation supporting any notification. In addition, 40 CFR §60.4245(a)(2) requires Transco to maintain records of all maintenance conducted on all of the engines. 40 CFR §60.4245(b) requires that owners and operators of stationary SI emergency ICE greater than 500 hp manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. 40 CFR §60.8(d) requires Transco to notify the Air Division at least 30 days prior to conducting any performance test. In addition, 40 CFR §60.4245(d) requires that a copy of all performance tests be submitted within 60 days after the test has been completed. This facility operates under a Title V MSOP; therefore, all records required under this Subpart must be retained for at least five years from the date of generation of each record and be readily available for inspection upon request.

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)]

Mainline Unit No. 4 has a heat input at peak load greater than 10 MMBtu/hr and commenced construction (date ordered) in 2013, after the February 18, 2005, applicability date for this standard; therefore, it is subject to this Subpart. It is classified as a new turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/hr and less than or equal to 850 MMBtu/hr.

Emission Limitations

Subpart KKKK regulates emissions of NO_x and SO_2. In accordance with 40 CFR §60.4320(a) and Table 1 to Subpart KKKK, the turbine is subject to a NO_x emission limit of 25 ppmvd at 15% O_2 on a dry basis or 150 ng/J of useful output (1.2 lb/MWh). Transco has elected to comply with the NO_x emission limit of 25 ppm at 15% O_2 on a dry basis. In accordance with 40 CFR §60.4330(a), Transco is subject to an SO_2 emission limit in which the turbine may not burn any fuel which contains total potential SO_2 emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input, or discharge into the atmosphere any gases which contain SO_2 in excess of 0.90 lb/MWh (110 ng/J) gross output. Transco has elected to comply with the SO_2 emission limit in which the turbine may not discharge into the atmosphere any gases which contain SO_2 in excess of 0.90 lb/MWh (110 ng/J) gross output. Transco has opted to certify the fuel burned in the turbine 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 SO_2 standard.

Compliance Requirements

Transco demonstrates compliance with the NO_x emission limit through performance testing (see *Testing Requirements* section below). 40 CFR §60.4365(a) exempts Transco from monitoring the total sulfur content of fuel by demonstrating that the fuel does not exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. The required demonstration is made by maintaining fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for the natural gas is 20 grains of sulfur or less per 100 standard cubic feet.

Testing Requirements

40 CFR §60.4400 requires an initial performance test within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup as required by 40 CFR §60.8(a). Subsequent NO_x performance tests are required on an annual basis with no more than 14 calendar months following the previous performance test. 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 (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75% of the NO_x emission limit, then annual performance testing must resume. Performance testing for this turbine demonstrated that it can comply with the applicable NO_x standard.

Notification, Reports, and Records

40 CFR §60.8(d) requires Transco to notify the Air Division at least 30 days prior to conducting any performance test. 40 CFR §60.4375(b) requires Transco to submit a written test report within 60 days of completing the performance test.

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 Mainline Unit Nos. 1-3 commenced construction prior to the August 23, 2011, applicability date of this regulation; therefore, this facility is not subject to this Subpart.

The compressor associated with Mainline Unit No. 4 commenced construction on May 9, 2013. 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.

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 compressors associated with all units at this facility were installed or modified prior to the September 18, 2015, applicability date of this regulation; 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 compressors associated with all units at this facility were installed or modified prior to the December 6, 2022, applicability date of this regulation; 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)]

On March 5, 2004, EPA promulgated Subpart YYYY. However, EPA stayed Subpart YYYY for gas-fired turbines on August 18, 2004. On March 9, 2022, EPA lifted the stay of effectiveness of the standards for new lean premix and diffusion flame gas-fired turbines. Therefore, Mainline Unit No. 4 is now subject to this Subpart.

Emission Limitations

Subpart YYYY regulates emissions of formaldehyde. In accordance with 40 CFR §63.6100, Mainline Unit No. 4 must comply with the emission limitations and operating limitations in Table 1 and Table 2 of the Subpart. Transco must meet a formaldehyde emission limit of 91 ppbvd or less at 15% O_2, except during startup as defined in 40 CFR §63.6175, and maintain any operating limitations approved by the Administrator. Transco chose not to install an oxidation catalyst in order to meet the applicable emission limitation in Table 1; therefore, Transco must operate a continuous monitoring system (CMS) and develop and implement an EPA approved written CMS quality control plan. Transco submitted their monitoring plan petition to EPA on June 25, 2022, and received EPA's approval of the plan on January 13, 2023. These documents may be found on the Department's e-file system at www.adem.alabama.gov under the document titles of 37798 101-0021 023 06-25-2022 MACT MOG SUBP YYYY EPA MONITORING PETITION and 37798 101-0021 023 01-13-2023 MACT MOG SUBP 4Y ML 4 CMS PLAN EPA APPROVAL LET.

Compliance Requirements

Transco is required to demonstrate compliance with the formaldehyde emission limit through performance testing (see *Testing Requirements* section below). 40 CFR §63.6125(b) requires Transco to continuously monitor any parameters specified in the approved petition to the Administrator, in order to comply with the operating limitations in Table 2 and as specified in Table 5 of this Subpart. Therefore, as approved by EPA, Transco continuously monitors the gas producer turbine speed (% NGP) and the inlet ambient air temperature (T_1) in order to confirm the turbine is operating in lean premixed (LPM) combustion mode. Under 40 CFR §63.6105(a) and (c), Transco must comply with the applicable emission limitations, operating limitations, and other requirements of Subpart YYYY, and must always operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Testing Requirements

40 CFR §63.6110 requires an initial performance test within 180 calendar days after the compliance date of March 9, 2022 (by September 9, 2022). Prior to their CMS petition being approved by EPA, Transco conducted an initial performance test on August 2, 2022, and demonstrated the unit to be in compliance with the applicable formaldehyde standard. After Transco's CMS plan was approved by EPA on January 13, 2023, a second performance test was conducted on June 20, 2023, and demonstrated the unit to be in compliance with the applicable formaldehyde standard. 40 CFR §63.6115 requires subsequent formaldehyde performance tests

on an annual basis as specified in Table 3 of this Subpart. The most recent performance testing was conducted on June 26, 2024, and demonstrated the unit to be in compliance with the applicable formaldehyde standard.

Notification, Reports, and Records

According to 40 CFR §63.6145(c), Transco must submit an Initial Notification no later than 120 calendar days after becoming subject to Subpart YYYY as specified in 40 CFR §63.9(b). Transco's application for the construction of the turbine satisfies the initial notification requirement. 40 CFR §63.6145(e) requires Transco to submit a notification of intent to conduct the initial performance test at least 60 calendar days prior to the test as specified in 40 CFR §63.7(b)(1). 40 CFR §63.6145(f) requires Transco to submit a Notification of Compliance Status according to 40 CFR §63.9(h)(2)(ii) for each performance test required to demonstrate compliance with the emission limitation for formaldehyde, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test.

40 CFR §63.6150(a) requires Transco to submit a semiannual compliance report according to Table 6 of the Subpart. Transco is also required to comply with the reporting requirements in 40 CFR §63.10 (excess emissions and monitoring system performance reports). 40 CFR §63.6150(b) states semiannual compliance reports should be submitted by July 31st and January 31st, for the reporting periods of January 1st through June 30th and July 1st through December 31st, respectively. Transco must submit all reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (*https://cdx.epa.gov/*).

In accordance with 40 CFR §63.6160, as a major source under Title V regulations, all records required under this Subpart must be retained for at least five years from the date of generation of each record and be readily available for inspection upon request. Transco must retain records of the most recent 2 years on site. Records of the remaining 3 years may be retained off site.

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 stationary reciprocating internal combustion engines (RICE) at the facility are affected sources under this Subpart. Each of the engines at this facility are considered new affected sources since they were constructed after June 12, 2006.

Emergency Unit Nos. 1 and 2 are 800 hp units. According to 40 CFR §63.6590(b)(1)(i), any new emergency stationary RICE with a site rating of more than 500 brake horsepower (hp) located at a major source of HAP emissions does not have to meet the requirements of this Subpart or of Subpart A except for the initial notification requirements of 40 CFR §63.6645(f).

Emission Limitations

Mainline Unit Nos. 1 and 2 are 4,735 hp 4SLB RICE, and Mainline Unit No. 3 is an 8,180 hp 4SLB RICE. According to 40 CFR §63.6600(b), any new 4SLB stationary RICE with a site rating of more than 500 brake hp located at a major source of HAP emissions must comply with the emission limitations in Table 2a and the operational limitations in Table 2b to this Subpart that apply.

According to Table 2a, Item 2, new 4SLB engines are required to either reduce CO emissions by 93% or more or limit formaldehyde exhaust concentration to 14 ppmvd or less at 15% O_2. Transco has chosen to reduce CO emissions by 93% or more. The standard must be achieved at 100% load (± 10%). Transco can choose to demonstrate compliance with the CO reduction requirement using a method specified in Table 6 of Subpart ZZZZ.

Operating Limitations

According to Table 2b, Item 1, 4SLB engines using an oxidation catalyst to comply with the CO reduction requirement must maintain the catalyst such that the pressure drop across the catalyst does not change by more than 2 inches of water at 100% load (± 10%) from the pressure drop across the catalyst that is measured during the initial performance test. In addition, the temperature of the engine's exhaust must be maintained such that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.

Testing Requirements

To comply with the Subpart, Transco is required to test CO emissions to determine if the required 93% or more reduction is being achieved. In accordance with 40 CFR §63.6610(a), an initial performance test is required within 180 days upon startup of the engine. According to Table 3, Item 1, Transco is also required to perform semiannual performance tests. After Transco has demonstrated compliance for two consecutive semiannual performance tests, the frequency of subsequent performance tests may be reduced to annually. However, if a performance test indicates that an engine is not in compliance with the CO emission limitation, or the engine has deviated from any operating limitations, Transco must resume semiannual performance tests. Performance test requirements are outlined in Table 4 to Subpart ZZZZ. The most recent performance testing conducted on Mainline Unit No. 1 on November 27, 2018, demonstrated compliance with the applicable standard. Mainline Unit No. 1 has been out of service since 2018 and will be tested upon return to service. The most recent performance testing conducted on Mainline Unit Nos. 2 and 3 on October 17 and 18, 2024, respectively, demonstrated each unit to be in compliance with the applicable standard. Transco is currently on the annual performance test schedule for all units.

Continuous Compliance Monitoring

Transco meets the CO reduction requirement by implementing a continuous parameter monitoring system (CPMS). In accordance with Table 6, Transco is required to collect catalyst inlet temperature data in accordance with the monitoring requirements of 40 CFR §63.8; reduce the data to 4-hour rolling averages; and measure the pressure drop across the catalyst once per month.

Notifications

According to 40 CFR §63.6645(c), Transco is required to submit an Initial Notification no later than 120 days after the source becomes subject to the relevant standard. Transco's submitted application for the re-designation of the facility from an area source of HAP to a major source of HAP dated November 9, 2011, serves as the initial notification for each unit. 40 CFR §63.6645(g) requires Transco to submit a Notification of Intent at least 60 days prior to conducting each performance test. 40 CFR §63.8(e) requires Transco to submit a Notification of Performance Evaluation and Site-Specific Performance Evaluation Test Plan for the CPMS at least 60 days prior

to conducting each performance test. 40 CFR §63.6645(h)(2) requires Transco to submit a Notification of Compliance Status, including performance test results, within 60 days of completing the performance test.

Reports

The reporting requirements are outlined in Table 7. Transco is required to submit a semiannual compliance report based on calendar year periods January – June and July – December. Each report must be submitted by July 31st and January 31st, respectively, and the compliance report must contain the information outlined in 40 CFR §63.6650(c) and (e). In accordance with 40 CFR §63.6650(f), Transco must submit all reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (*https://cdx.epa.gov/*) as outlined in 40 CFR §63.6650(i).

In accordance with 40 CFR §63.6650(b)(5), Transco may submit the semiannual compliance reports coinciding with the due dates of the Title V Semiannual Monitoring Report (SMR).

Recordkeeping

All notifications and reports (and supporting documentation) as well as records pertaining to initial and continuous compliance must be maintained for a period of 5 years from the date of each record or report. They must be maintained on-site for at least 2 years and may be kept off-site for the remaining 3 years.

General Provisions (40 CFR Part 63, Subpart A)

Transco is required to comply with all applicable general provisions of 40 CFR Part 63, Subpart A, except the provisions related to opacity or visible emission standards and COMS since Subpart ZZZZ does not contain these standards or requirements. Table 8 to Subpart ZZZZ also specifies what sections of the subpart have additional or more stringent requirements than the general provisions.

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 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 (157,258 TPY) of CO_2e or more per year from all stationary fuel combustion sources combined. Transco must calculate greenhouse gas quantities annually according to the methodologies described in 40 CFR §98.2(c). In accordance with 40 CFR §98.3(g), Transco 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(b). In accordance with 40 CFR §98.5, the annual report must be submitted electronically via EPA's Central Data Exchange in accordance with the requirements of 40 CFR §98.4. 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 engines and turbine 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 engines and turbine 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 are 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 engines and turbine 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 Periodic Monitoring

Transco is 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 PSD synthetic minor source NO_x, CO, and VOC limits for Mainline Unit Nos. 1-3, and Emergency Generator Nos. 1 and 2, and to satisfy the periodic monitoring requirement, emission testing must be conducted concurrently with the emission testing required for 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ. No periodic monitoring would be required if a unit does not operate for production purposes during the respective testing period.

To monitor compliance with the applicable 40 CFR Part 60, Subpart KKKK NO_x emission limit for Mainline Unit No. 4, Transco is required to conduct NO_x performance tests on an annual basis, with no more than fourteen (14) months elapsing between tests. 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. To satisfy the periodic monitoring requirement for Mainline Unit No. 4, Transco is required to perform subsequent emission testing once per calendar year during which the unit operates for the purposes of production (i.e. the compression/transmission of natural gas), with no more than fourteen (14) months elapsing between tests. Periodic monitoring may be conducted concurrently with the annual or biennial EPA Reference Method test that is required by 40 CFR Part 60, Subpart KKKK. No periodic monitoring would be required if the unit does not operate for production purposes during the annual testing period.

To determine compliance with the SO_2 standard in 40 CFR Part 60, Subpart KKKK, for Mainline Unit No. 4, Transco must continue to demonstrate the fuel meets the definition of natural gas in 40 CFR §60.331(u) and 40 CFR §60.4365(a), respectively, as per Transco's FERC Natural Gas Tariff.

To determine compliance with the applicable 40 CFR Part 63, Subpart YYYY formaldehyde emission limit for Mainline Unit No. 4, and to satisfy the periodic monitoring requirement, Transco is required to perform subsequent emission testing once per calendar year during which the unit operates for the purposes of production (i.e. the compression/transmission of natural gas). No periodic monitoring is required if the unit does not operate for production purposes during the annual testing period.

Recordkeeping and Reporting

In addition to the recordkeeping and reporting required to comply with 40 CFR Part 63, Subpart ZZZZ and with 40 CFR Part 60, Subpart JJJJ for Mainline Unit Nos. 1-3, and Emergency Generator Nos. 1 and 2, and with 40 CFR Part 63, Subpart YYYY for Mainline Unit No. 4, as part of the Semiannual Monitoring Report, Transco 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). Transco is also required to include a statement addressing whether a unit operated for production purposes during the respective reporting period. Transco 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. Transco is required to maintain the most current fuel tariff sheet on-site in a form suitable for inspection as a method for monitoring compliance with 40 CFR §60.4330(a) of Subpart KKKK for Mainline Unit No. 4. 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 5 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.

Although Mainline Unit Nos. 1-3 each utilize an active control device to meet an emission standard, these units are not subject to CAM because 40 CFR §64.2(b)(i) exempts units subject to an emission standard proposed after November 15, 1990, pursuant to Section 111 or 112 of the Clean Air Act. These units are subject to 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE), which is a standard that meets this exemption. Mainline Unit No. 4 does not emit greater than 100 TPY of any criteria pollutant and does not employ an active control device. As such, the facility is not required to submit a CAM plan for this renewal.

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

I recommend that Transcontinental Gas Pipe Line Company, LLC's Title V MSOP (101-0021) 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.

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Date

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