STATEMENT OF BASIS
TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
STATION 82
CODEN, MOBILE COUNTY, ALABAMA
FACILITY NO. 503-3045

The 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.

Transcontinental Gas Pipe Line Company, LLC (Transco) Station 82 was originally constructed/began operations in 1994. The initial MSOP was issued on March 15, 2000, and this is the fifth renewal. The current MSOP was issued on February 4, 2020, became effective on March 15, 2020, and is scheduled to expire on March 14, 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 September 14, 2024, but no earlier than September 14, 2023. The initial application for this permit renewal was submitted September 6, 2024, received September 9, 2024, and the application was deemed complete on September 9, 2024.

The facility is located in Mobile County, which is currently listed as attainment/unclassifiable 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 AL0000000109703045).

Facility Operations

Transco operates a compressor station for the transmission of pipeline natural gas (SIC 4922) located in Coden, Mobile 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 natural gas-fired turbines. 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) 6,546 hp Solar Taurus T7000 Natural Gas-fired Combustion Turbines (Mainline Unit Nos. 1 – 2)

Emission Unit No. 003: One (1) 15,675 hp Solar Mars T15000 Natural Gas-fired Combustion Turbine (Mainline Unit No. 3)

Emission Unit No. 004: One (1) 1,478 hp Waukesha L7042GL, 4-stroke, Lean-burn (4SLB) Spark Ignition (SI) Natural Gas-fired Emergency Reciprocating Engine (Auxiliary Unit No. 1)

Insignificant emission sources at this facility include three (3) gas starters, lube oil vents, pipeline blowdowns, and degreasers.

Mainline Unit Nos. 1 and 2 have not operated for production purposes since 2012, and Mainline Unit No. 3 since 2002. According to Transco, each unit was put in preservation mode after their last respective operation. This procedure entails purging the fuel system, capping and sealing all oil lines, fuel lines, and engine openings, and applying a crystalline preservation powder. On October 16, 2019, Transco submitted a Solar Turbines specification document titled "Preservation, Turbomachinery Air Side and Fuel Systems" that outlines the preservation mode process. This document may be found in the Department's e-file system at www.adem.alabama.gov under the file name 12307 503-3045 097 10-16-2019 CORR MOG MAINTENANCE PLAN. Transco is required to follow this process for as long as the units are non-operational.

Proposed Changes

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

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 Significant Emission Rates Exceeded (Y/N)
AP X001 - MLU 1 - (new) - NO_x SMS emission limit established	August 25, 1993	--	--	--	N
AP X002 – MLU 2 - (new) - NO_x SMS emission limit established	August 25, 1993	--	--	--	N
AP X003 - MLU 3 - (new) - NO_x and CO SMS emission limit established	March 31, 1998	--	--	--	N
AP X004 - AUX 1 - (new) - NO_x and CO SMS emission limit, and operating hours limit established	March 31, 1998	--	--	--	N
Initial Title V MSOP	March 15, 2000	March 15, 2000	March 14, 2005	--	--
1st Title V MSOP Renewal	January 25, 2005	March 15, 2005	March 14, 2010	Administrative Amendment- February 26, 2009 - Name Change	--
2nd Title V MSOP Renewal	March 15, 2010	March 15, 2010	March 14, 2015	--	--
3rd Title V MSOP Renewal	June 16, 2015	June 16, 2015	March 14, 2020	--	--
4th Title V MSOP Renewal	February 4, 2020	March 15, 2020	March 14, 2025	--	--

Plant-Wide Potential to Emit (PTE)

Pollutant	PTE (TPY)
$PM/PM_{10}/PM_{2.5}$	6.99
NO_x	276.76
CO	124.67
SO_2	3.57
VOC	11.44
Total HAP	1.55
CO_2e	130,382.00

Applicability: Federal Regulations

Title V

This facility is a major source under Title V regulations because the potential emissions for nitrogen oxides (NO_x) and carbon monoxide (CO) each 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 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 of NO_x exceed 250 TPY. Mainline Unit Nos. 1 and 2 were installed in 1994, and are each subject to a synthetic minor NO_x emission limitation of 25.4 lb/hr that was established at the time of their installation to avoid undergoing a PSD review. Mainline Unit No. 3 was installed in 1998, and is subject to a synthetic minor NO_x emission limitation of 11.97 lb/hr and a synthetic minor CO emission limitation of 14.57 lb/hr. Auxiliary Unit No. 1 was installed in 1998, and is subject to a synthetic minor NO_x emission limitation of 7.32 lb/hr and a synthetic minor CO emission limitation of 8.63 lb/hr. Additionally, Auxiliary Unit No. 1 is subject to a 500 hour per year operational limitation that was established at the time of installation in order to avoid undergoing a PSD review.

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)]

Mainline Unit Nos. 1-3 were manufactured after the Subpart GG, applicability date of October 3, 1977 (1994, 1994, and 1998, respectively), and each has a heat input at peak load equal to or greater than 10 MMBtu/hr; therefore, they are each subject to this Subpart. In accordance with 40 CFR §60.332(a)(2) and 40 CFR §60.333(a) and (b), each unit is subject to applicable NO_x and SO_2 emission limits, respectively, under this Subpart. Mainline Unit Nos. 1 and 2 are each subject to a NO_x emission standard of 183 ppm at 15% O_2 on a dry basis and an SO_2 emission standard of 150 ppm at 15% O_2 on a dry basis. Mainline Unit No. 3 is subject to a NO_x emission standard of 204 ppm at 15% O_2 on a dry basis and an SO_2 emission standard of 150 ppm at 15% O_2 on a dry basis.

Performance testing for each turbine demonstrated that each can comply with the applicable NO_x standard. Transco certifies the fuel burned in each 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 §60.334(h)(3)(i) to demonstrate compliance with the applicable SO_2 standard.

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)]

The turbines at this facility are not subject to this Subpart since they were not constructed, reconstructed, or modified after the February 18, 2005, applicability date.

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)]

Pursuant to 40 CFR §60.4230(a)(4), the reciprocating engine at this facility is not subject to this Subpart since it was not constructed or modified after the June 12, 2006, 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 all units at this facility were installed prior to the August 23, 2011, applicability date of this regulation; 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 compressors associated with all units at this facility were installed 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 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)]

This facility is not a major source of HAP emissions; therefore, none of the combustion turbines at the facility are affected sources under this Subpart.

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 engine (RICE) at the facility is an affected source under this Subpart. Under this Subpart, Auxiliary Unit No. 1 is classified as an existing 4SLB SI emergency RICE greater than 500 hp located at an area source of HAP. In accordance with 40 CFR §63.6595(a)(1), Transco is required to meet the requirements of this Subpart and Subpart A for this RICE.

Compliance Requirements

This engine is being operated as an emergency unit; therefore, in accordance with 40 CFR §63.6640(f), to retain the emergency classification, this engine must 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 40 CFR §63.6603, any existing stationary RICE located at an area source of HAP emissions must comply with applicable emission limitations and other requirements in Table 2d of Subpart ZZZZ.

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 within one (1) year plus 30 days of previous change, 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 within one (1) year plus 30 days of previous inspection, whichever comes first, and replace as necessary; and
- Inspect all hoses and belts every 500 hours of operation or within one (1) year plus 30 days of previous inspection, whichever comes first, and replace as necessary.

40 CFR §63.6625(e)(3) and Table 6, Item 9, requires this unit be operated and maintained according to the manufacturer's emission related operation and maintenance instructions or develop and follow 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.

Testing Requirements

According to Tables 4 and 5 of the Subpart, no initial or subsequent performance testing is required for this emergency engine.

Notification, Reports, and Records

According to 40 CFR §63.6655(e)(2), Transco must keep records of the maintenance conducted on the existing emergency stationary RICE in order to demonstrate that they operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. 40 CFR §63.6655(f)(2), requires Transco to maintain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Transco must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

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 (27,558 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 engine and turbines are 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 engine and turbines 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 nor is this facility 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 engine and turbines 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 emission limit for Mainline Unit Nos. 1 and 2, and the applicable PSD synthetic minor source NO_x and CO emission limits for Mainline Unit No. 3, and to satisfy the periodic monitoring requirement, emission testing is required twice per calendar year at a frequency of once per semiannual period (January 1st - June 30th and July 1st - December 31st) during which each 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 must be conducted using an approved US EPA Reference Method. 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, with no more than fourteen (14) months elapsing between tests. 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.

To determine compliance with the SO_2 standard in 40 CFR Part 60, Subpart GG, for Mainline Unit Nos. 1, 2, and 3, Transco must 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.

No monitoring is proposed to determine compliance with the applicable PSD synthetic minor source NO_x and CO emission limits for Auxiliary Unit No. 1. During the 3rd Title V MSOP renewal, Transco proposed a change to the frequency of the emission monitoring for Auxiliary Unit No. 1 from once every five years to none based on the historical operating and emissions data and because this unit is subject to 40 CFR Part 63, Subpart ZZZZ, which requires no testing and restricts operation during non-emergency use. The Air Division determined that this would be sufficient based on these factors.

Recordkeeping and Reporting

In addition to the recordkeeping and reporting required to comply with 40 CFR Part 63, Subpart ZZZZ for Auxiliary Unit No. 1, 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 §60.333(a) and (b) of Subpart GG for Mainline Unit Nos. 1, 2,

and 3. 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.

Mainline Unit Nos. 1 and 2 are the only emission units at the facility that emit greater than 100 TPY of any criteria pollutant; however, none of these units employ active control devices as defined in the CAM regulations. 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 (503-3045) 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 Escalante

Andrea Escalante
Chemical Branch
Natural Resources Section
Agriculture/Gas Unit
Air Division

October 16, 2024
Date

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