INFORMATION RELATIVE TO
THE DRAFT TITLE V OPERATING PERMIT
November 10, 2024

GENERAL FACILITY INFORMATION

Facility Name: Transcontinental Gas Pipeline Company LLC, Station 70
Facility Address:
967 Highway 583 North, Tylertown, MS 396679360
County: Walthall
SIC Code(s): 4922
NAICS Code(s): 221210

APPLICATION SUMMARY

Permit No.: 2760-00010
Permit Action: Renewal
Permit Folder: PER20240001
Application Receipt Date:
Application Deemed Complete: 10/26/24
CBI Submitted?: No

NSPS (Part 60): A, JJJJ, KKKK, OOOOb
NESHAP (Part 61): N/A
NESHAP (Part 63): A, ZZZZ
112(r) / RMP: N/A
Other: N/A

FACILITY DESCRIPTION

Transcontinental Gas Pipeline Company LLC owns and operates Compressor Station No. 70 located at 967 Highway 583 North in Tylertown, Mississippi, for the purpose of transporting natural gas through its pipeline distribution system. Natural gas compression at the Compressor Station is accomplished through four (4) natural gas-fired turbines, three (3) older model turbines (Emission Points AA-003, AA-004, and AA-005) rated at 7,210 horsepower (HP)-each and one (1) newer model turbine (Emission Point AA-008) rated at 16,000 HP. Emission Points AA-003, AA-004, and AA-005 each have a waste heat recovery boiler equipped with burners for supplemental natural gas fuel combustion. Emission Points AA-003, AA-004, and AA-005 are also each equipped with a natural gas starter. To accomplish startup rotation of the turbines, the starters each vent high pressure natural gas through the associated turbine directly to the atmosphere. Emission Point AA-008 is equipped with an electric starter. All combustion equipment fires only pipeline quality natural gas. The compressor station also operates one (1) 408-horsepower natural gas-fired auxiliary generator (non-emergency) engine. The following list contains the significant emission points at the facility. The station also has facility blowdowns, and fugitive emissions, as well as insignificant activities.

Emission Point	Description
AA-001	408 Horsepower (HP) (3.5 MMBTU/hr) Ingersoll-Rand PSVG-6 Natural Gas-Fired Auxiliary Generator (Facility Ref. No. 3)

Emission Point	Description
AA-003	7,210 HP (101.7 MMBTU/hr) GE Natural Gas-Fired Turbine and 27 MMBTU/hr VOGT Supplemental Natural Gas-Fired Waste Heat Recovery Boiler (Facility Ref. No. 6)
AA-004	7,210 HP (101.7 MMBTU/hr) GE Natural Gas-Fired Turbine and 27 MMBTU/hr VOGT Supplemental Natural Gas-Fired Waste Heat Recovery Boiler (Facility Ref. No. 7)
AA-005	7,210 HP (101.7 MMBTU/hr) GE Natural Gas-Fired Turbine (Exhausted through VOGT Waste Heat Recovery Boiler--no supplemental firing) (Facility Ref. No. 8)
AA-006	Natural Gas Starter for Emission Point AA-003
AA-007	Natural Gas Starter for Emission Point AA-004
AA-008	16,000 HP Solar Mars 100 Natural Gas-Fired Combustion Turbine
AA-009	Natural Gas Starter for Emission Point AA-005
AA-010	1,230 hp (825 kw) Natural Gas-Fired Spark Ignition (SI) Four Stroke Lean Burn (4SLB) Emergency Engine
AA-011	16,785 HP Solar Mars 100-16000S Natural Gas-Fired Combustion Turbine

FACILITY MODIFICATIONS AND/OR PERMIT CHANGES

The modifications included within this permit renewal for Compressor Station 70 include the following:

- Retire Emission Points AA-003 and AA-006.
- Retire Insignificant Activities, including the following:
    - Boiler 6 for Turbine AA-003,
    - Two (2) steam-powered turbines (non-emitting units).
- Install one (1) new Solar Mars 100-16000S combustion turbine (proposed as Emission Point AA-011) and one (1) 8,820-gallon lube oil tank and one (1) 500-gallon lube oil day tank (each proposed as an Insignificant Activity). Sunset language has been included in Condition 3.B.17 requiring the permittee to permanently shut down Emission Points AA-003 and AA-006 upon startup of new Emission Point AA-011. The permittee is only allowed to operate existing emission sources (Emission Points AA-003 and AA-006) and new emission source (Emission Point AA-011) simultaneously during the shakedown period.

TITLE V SOURCE APPLICABILITY

The facility's potential-to-emit (PTE) exceeds the Title V major source threshold of 100 tons per year (tpy) for each of the following criteria air pollutants: Nitrogen Oxides (NO_x) and Carbon Monoxide (CO). The facility's potential-to-emit hazardous air pollutants (HAPs) does not exceed the major source threshold of 25 tpy of total HAPs or 10 tpy for any individual HAP.

Facility-Wide Potential-to-Emit Summary[1]

Pollutant	PTE Emissions (tons/yr)
Particulate Matter (TSP)	9.21
PM_{10}	16.04
$PM_{2.5}$	16.04
Sulfur Dioxide (SO_2)	4.00
Nitrogen Oxides (NO_x)	360.03
Carbon Monoxide (CO)	205.77
Volatile Organic Compounds (VOC)	22.07
Total Reduced Sulfur (TRS)	0.00
Lead	0.00
CFC/HCFC	0.00
Total HAP	2.86

[1] The PTE emissions reflect any emission limits or enforceable restrictions included in the proposed permit.

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) APPLICABILITY

The facility is not one of the 28 categorical facilities listed in 40 CFR 52.21(b)(1)(i)(c)(iii); therefore, the PSD threshold for a major source is 250 tpy. The potential emissions of NOx and CO from the existing equipment at the compressor station exceeds 250 tpy and hence the facility is considered as an existing major source for PSD purposes. Upon removal of Emission Points AA-003 and AA-006 and installation of Emission Point AA-011, only the potential emissions of NOx will exceed 250 tpy. The compressor turbines (AA-004 and AA-005) are considered "Grandfathered Sources". Further, since total project emissions associated with the removal of Emission Points AA-003 and AA-006 and the installation of Emission Point AA-011 does not result in an increase in emissions of any criteria pollutant above PSD Significant Emission Rates (SER), this permit action to renew the Title V permit will not change the Prevention of Significant Deterioration (PSD) status of the facility. A table of the associated changes in criteria pollutant emissions from the modification is tabularized below.

Facility-Wide Changes in Potential Emissions

Pollutant	PTE Emissions (tons/yr)
Particulate Matter (TSP)	+2.70
PM_{10}	+0.20
$PM_{2.5}$	+0.20

Pollutant	PTE Emissions (tons/yr)
Sulfur Dioxide (SO_2)	+1.58
Nitrogen Oxides (NO_x)	-125.22
Carbon Monoxide (CO)	-26.56
Volatile Organic Compounds (VOC)	-40.91

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

40 CFR Part 64 specifies the requirements for CAM. The general applicability of this rule can be found in 40 CFR 64.2 and requires a Title V source to comply with the CAM requirements if all three of the following criteria are met for a pollutant-specific emission unit (PSEU):

1. The unit is subject to an emission limitation or standard for a regulated air pollutant other than exemptions under 40 CFR 64.2(b)(1);
2. The unit uses a control device to comply with the standard; and
3. The unit has pre-control emissions exceeding Title V major source threshold.

There is no control equipment associated with any emission units subject to an emission limit or standard at this facility, therefore, Compliance Assurance Monitoring does not apply to the Compressor Station.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

The facility is an area source of Hazardous Air Pollutants (HAP) since the facility does not have the potential to emit more than 25 tons per year of total HAPs or 10 tpy of any individual HAP.

40 CFR 63 Subpart ZZZZ

The permittee is subject to Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and shall comply with all applicable requirements.

Emission Point AA-001 is an existing non-emergency spark ignition (SI) 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than 500 brake HP located at an area source of HAP emissions, and as such has to meet the applicable scheduled maintenance activities and emergency operational requirements of 40 CFR Part 63, Subpart ZZZZ.

Emission Point AA-010 is a new emergency SI 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at an area source of HAP emissions. The permittee complies with Subpart ZZZZ by complying with the applicable requirements of 40 CFR 60, Subpart JJJJ. No other requirements under Subpart ZZZZ apply to the emergency engine.

40 CFR 63 Subpart YYYY

The NESHAP for Stationary Combustion Turbines establishes national emission limitations and operating limitations for HAP emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations. The Compressor Station operates stationary combustion turbines; however, the facility is an area source and not a major source of HAP emissions. Therefore, the facility is not subject to the provisions of NESHAP YYYY.

40 CFR 63 Subpart DDDDD

MACT Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial for Institutional, Commercial, and Industrial Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD, establishes emission and operating limitations for HAP emissions from industrial, commercial, or institutional boilers and process heaters that are located at, or is part of, a major source of HAPs. Since the facility is an area source and not a major source of HAP emissions, the facility is not subject to the provisions of NESHAP DDDDD.

40 CFR 63 Subpart JJJJJJ

MACT Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR Part 63, Subpart JJJJJJ, establishes emission and operating limitations for HAP emissions from industrial, commercial, or institutional boilers that are located at an area source of HAPs. Since the Compressor Station is an area source of Hazardous Air Pollutant (HAP) emissions, the facility is potentially subject to 40 CFR 63, Subpart JJJJJJ. However, the Compressor Station's waste heat boilers are gas-fired, and in accordance with 40 CFR 63.11195(e), gas-fired boilers are exempt from the requirements of NESHAP JJJJJJ. Further, the facility's comfort heaters are not covered sources under NESHAP JJJJJJ. Therefore, none of the facility's external combustion sources are subject to NESHAP JJJJJJ or to any requirements in NESHAP JJJJJJ.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

40 CFR 60 SUBPART Dc

The provisions of 40 CFR 60 Subpart Dc - New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS Dc) are applicable to steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989 and have a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). The Compressor Station operates waste heat recovery boilers. However, only the waste heat recovery boilers for Emission Points AA-003 and AA-004 fire supplemental natural gas. While each boiler has a heat input of 27 MMBTUH; each boiler was constructed prior to 1989. Therefore, the waste heat recovery boilers are not subject to the provisions of NSPS Dc.

40 CFR 60 SUBPART GG

The provisions of 40 CFR 60 Subpart GG - New Source Performance Standards for Stationary Gas Turbines (NSPS GG) are applicable to stationary gas turbines with a heat input at peak load equal to or greater than 10 MMBTUH, which commenced construction, modification, or reconstruction after October 3, 1977. The Compressor Station operates four (4) existing

stationary combustion turbines (Emission Points AA-003, AA-004, AA-005, and AA-008) and will install a new stationary combustion turbine (proposed as Emission Point AA-011). Emission Points AA-003, AA-004, and AA-005, each have a heat input of 101.7 MMBTUH; however, each turbine was constructed prior to 1977. Therefore, Emission Points AA-003, AA-004, and AA-005 are not subject to the provisions of NSPS GG. Emission Point AA-008 has a heat input of 126.3 MMBTU/hr and was constructed in 2009; therefore, Emission Point AA-008 is subject to the provisions of NSPS KKKK and is not subject to NSPS GG. Further, since Emission Point AA-011 will have a heat input of 152.13 MMBTU/hr and will be constructed after the NSPS KKKK effective date in 2005, Emission Point AA-011 will also subject to the provisions of NSPS KKKK and not subject to NSPS GG.

40 CFR 60 SUBPART KKKK

The provisions of 40 CFR 60 Subpart KKKK - New Source Performance Standards for Stationary Combustion Turbines (NSPS KKKK) are applicable to stationary combustion turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005. Since Emission Points AA-003, AA-004, and AA-005 were constructed prior to 1977, the turbines are not subject to the provisions of NSPS KKKK. Since Emission Point AA-008 has a heat input of 126.3 MMBTUH and was constructed after 2005, the turbine is subject to NSPS KKKK and is limited to 25 ppm of NOx and 0.06 lb SO2/MMBTU. The facility is required to conduct annual stack testing to demonstrate compliance with the NOx emissions limitation. The facility is exempt from monitoring the total sulfur content of the fuels since the natural gas fuel is obligated under tariff to maintain sulfur content to less than 20 grains/scf per 100 standard cubic feet.

Since Emission Point AA-011 will have a heat input of 152.13 MMBTUH and will be constructed after 2005, the turbine will be subject to NSPS KKKK and is limited to 25 ppm of NOx and 0.06 lb SO2/MMBTU. The facility will be required to conduct annual stack testing to demonstrate compliance with the NOx emissions limitation. The facility is exempt from monitoring the total sulfur content of the fuels since the natural gas fuel is obligated under tariff to maintain sulfur content to less than 20 grains/scf per 100 standard cubic feet.

40 CFR 60 SUBPART IIII

The provisions of 40 CFR 60 Subpart IIII - New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (NSPS IIII) are applicable to stationary compression ignition internal combustion engines that commenced construction, modification, or reconstruction after June 12, 2006. Emission Point AA-001 and AA-010 are both stationary spark ignition internal combustion engines. Therefore, NSPS IIII is not applicable to the engines.

40 CFR 60 SUBPART JJJJ

The provisions of 40 CFR 60 Subpart JJJJ - New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines are applicable to stationary spark ignition internal combustion engines that commenced construction, modification, or reconstruction after June 12, 2006. Emission Point AA-001 is a stationary spark ignition internal combustion engine;

however, the engine was manufactured prior to the NSPS JJJJ effective date; therefore, the engine is not subject to any requirements of NSPS JJJJ.

Emission Point AA-010 is a new stationary spark ignition internal combustion engine; therefore, the engine is subject to NSPS JJJJ. The source is not an EPA certified emergency engine, therefore, an initial performance stack test was required to be conducted. The unit was tested on June 26, 2024, and results were compliant. All other applicable NSPS JJJJ requirements have been included in the permit.

40 CFR 60 SUBPART OOOOb

The provisions of 40 CFR 60 Subpart OOOOb - Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After December 6, 2022, applies to affected facilities in the crude oil and natural gas source category that commence construction, modification, or reconstruction after December 6, 2022.

Specific to Station 70, Subpart OOOOb includes requirements for centrifugal compressor-affected facilities that use dry seals. Transco anticipates that the centrifugal compressor associated with the new Solar Mars turbine (proposed as Emission Point AA-011) will be equipped with dry seals; therefore, the requirements for centrifugal compressors with dry seals have been included in the draft permit.

The proposed installation of the new Solar Mars turbine (proposed as Emission Point AA-011), along with the retirement of the existing natural-gas fired turbine (Emission Point AA-003) and the two non-emitting steam-powered turbines, will not result in a "modification" of the compressor station. The maximum predicted rating provided in Solar's Summary of Engine Exhaust Analysis at 100% load and 0 °F for the new Solar Mars turbine (proposed as Emission Point AA-011) is 16,785 hp. The existing natural-gas fired turbine (AA-003) has a FERC certificated rating of 7,210 hp, and each of the two non-emitting steam-powered turbines has a FERC certificated rating of 4,880 hp. Therefore, since there is not a total horsepower increase, there is no modification under NSPS Subpart OOOOb. Consequently, the provisions of NSPS OOOOb does not apply to the collection of fugitive equipment components at Station 70.

SPECIFIC APPLICABLE REQUIREMENTS

Emission Point(s)	Pollutant	Draft Permit Emission Limits	Monitoring Requirements
AA-001	Area HAPs	Scheduled Maintenance Activities	Monitoring of operations
AA-001 and AA-010	PM (filterable only)	0.6 lbs/MMBTU	Record Type of Fuel Used
AA-00,3 AA-004, and AA-005 (Waste Heat	SO_2	4.8 lbs/MMBTU	Record Type of Fuel Used

Emission Point(s)	Pollutant	Draft Permit Emission Limits	Monitoring Requirements
Boilers only)			
AA-003, AA-004, AA-005, AA-008, and AA-011	PM (filterable only)	$E = 0.8808 * I^{-0.1667}$	Record Type of Fuel Used
AA-001 and AA-003 through AA-009	Fuel	Pipeline quality natural gas only	Record Type of Fuel Used
AA-006, AA-007, and AA-009	VOC	35.42 MMSCF/yr of natural gas vented from each starter	Monitoring of operations
	VOC	18.38 tons/yr (PSD avoidance limit) from each starter	Record Type of Fuel Used
AA-008	CO	8.8 lb/hr and 38.74 tons/yr (PSD avoidance limit)	Performance stack testing every five years
	NO_x	8.7 lb/hr and 38.16 tons/yr (PSD avoidance limit)	Performance stack testing every five years
AA-008 and AA-011	NO_x	25 ppm NOx @15% O_2	Annual performance stack testing
	SO_2	0.06 lb SO_2 /MMBtu	Recordkeeping of current, valid purchase contract, tariff sheet or transportation contract for the natural gas
	NO_x and SO_2	Minimizing Emissions	Monitoring of operations
AA-010	NOx, CO, and VOC	2.0 g/HP-hr CO	The required NSPS JJJJ initial performance stack test was conducted, and results were compliant.
		4.0 g/HP-hr VOC	
		1.0 g-HP-hr NOx	
		Must install a non-resettable hour meter	A non-resettable hour meter was installed.
		Operating Requirements	Operating Requirements
AA-011	Operational Restriction	Startup/Shutdown of Existing Equipment.	Startup of New Equipment and Shutdown of Existing Equipment.
	GHG and VOC	Operating Requirements	Operating Requirements

OTHER REQUIREMENTS:
N/A