

**INFORMATION RELATIVE TO  
THE DRAFT TITLE V OPERATING PERMIT  
February 24, 2025**

**GENERAL FACILITY INFORMATION**

**Facility Name:** Tennessee Gas Pipeline Company LLC, Isola Compressor Station Number 843  
**Facility Address:** Route 1 Box 266, Highway 49 West, Isola, MS 38754  
**County:** Humphreys  
**SIC Code(s):** 4922  
**NAICS Code(s):** 486210

**APPLICATION SUMMARY**

<b>Permit No.:</b> 1180-00003	<b>NSPS (Part 60):</b> N/A
<b>Permit Action:</b> Renewal	<b>NESHAP (Part 61):</b> N/A
<b>Permit Folder:</b> PER20230001	<b>NESHAP (Part 63):</b> A, ZZZZ, DDDDD
<b>Application Receipt Date:</b> December 1, 2023	<b>112(r) / RMP:</b> N/A
<b>Application Deemed Complete:</b>	<b>Other:</b> N/A
<b>CBI Submitted?:</b> Yes	

**FACILITY DESCRIPTION**

Tennessee Gas Pipeline Company owns and operates its Isola Compressor Station No. 843 located in Isola, Mississippi (Humphreys County), for the purpose of transporting natural gas through its pipeline distribution system. The Isola Compressor Station consists of significant sources of emissions from nine (9) natural gas-fired compressor engines, one (1) natural gas-fired emergency backup generator engine, and one (1) natural gas-fired water heater. Sources also includes compressor engine blowdown, a parts degreaser, fugitive emissions from equipment, and numerous liquid product storage tanks qualifying as insignificant activities. The following table contains the significant emission points at the facility.

Emission Point	Description
AA-001	1,085 Horsepower (HP) Caterpillar Model G3516 natural gas-fired four stroke lean burn (4SLB) emergency backup power generating engine (Ref. No. G3516)
AA-002	1,100 HP Cooper Bessemer Model GMV-10TF natural gas-fired two stroke lean burn (2SLB) compressor engine (Ref. No. ENG PT-1A)
AA-003	1,100 HP Cooper Bessemer Model GMV-10TF natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-2A)
AA-004	1,100 HP Cooper Bessemer Model GMV-10TF natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-3A)
AA-005	1,100 HP Cooper Bessemer Model GMV-10TF natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-4A)

Emission Point	Description
AA-006	1,100 HP Cooper Bessemer Model GMV-10TF natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-5A)
AA-007	1,350 HP Cooper Bessemer Model 16V-250 natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-6A)
AA-008	2,500 HP Cooper Bessemer Model GMWA-10 natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-7A)
AA-009	2,500 HP Cooper Bessemer Model GMWA-10 natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-8A)
AA-010	2,500 HP Cooper Bessemer Model GMWA-10 natural gas-fired 2SLB compressor engine (Ref. No. ENG PT-9A)
AA-011	4.0 MMBTU/hr Natco natural gas-fired jacket water heater (Ref. No. JWHPT-1)
AA-013	Insignificant Activities, including but not limited to a Parts Degreaser, Liquid Product Storage Tanks, Compressor Station Blowdowns, and Fugitive Emissions from Component Leaks

#### 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: Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), and Volatile Organic Compounds (VOC). The facility's potential-to-emit hazardous air pollutants (HAPs) also exceeds the Title V major source thresholds of 25 tpy of total HAPs and 10 tpy for the individual HAP, formaldehyde.

#### **Facility-Wide Potential-to-Emit Summary<sup>1</sup>**

Pollutant	PTE Emissions (tons/yr)
Particulate Matter (TSP)	34.9
PM <sub>10</sub>	44.1
PM <sub>2.5</sub>	44.1
Sulfur Dioxide (SO <sub>2</sub> )	0.55
Nitrogen Oxides (NO <sub>x</sub> )	2,870.93
Carbon Monoxide (CO)	354
Volatile Organic Compounds (VOC)	122
Total Reduced Sulfur (TRS)	0
Lead	0
CFC/HCFC	0
Total HAP	80.20

Pollutant	PTE Emissions (tons/yr)
Formaldehyde	53.93

<sup>1</sup> 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)(a); therefore, the PSD threshold for a major source is 250 tpy. The facility has the potential to emit more than 250 tons per year of NO<sub>x</sub> and CO; therefore, the facility is considered an existing major stationary source. This permitting action will not change the current PSD status of the facility.

#### FACILITY MODIFICATIONS AND/OR PERMIT CHANGES

There are no proposed modifications to the facility that are being addressed in the permit action,

#### 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.

The facility has equipment with pre-control emissions exceeding the major source thresholds; however, no unit uses a control device to comply with an emission limit or standard. Therefore, CAM does not apply to any unit at this facility.

#### NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

The facility is a major source of HAP emissions since the facility has the potential to emit more than 25 tpy of total HAPs and 10 tpy of the individual HAP, formaldehyde.

#### 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Reciprocating Internal Combustion Engines (RICE) NESHAP, Subpart ZZZZ, regulates HAP emissions from RICE.

Emission Point AA-001 is an existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. As such, the emergency engine is only required to meet the emergency operational requirements of 40 CFR Part 63, Subpart ZZZZ. Emission Points AA-002 through AA-010 are non-emergency spark ignition (SI) two stroke lean burn (2SLB) stationary RICE, each with a site rating of more than 500 brake HP located at a major source of HAP emissions and as such are not required to meet the requirements of 40 CFR Part 63, Subpart ZZZZ or the General Provisions in Subpart A

40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Since the Isola Compressor Station is a major source of HAP emissions, the facility is subject to 40 CFR 63, Subpart DDDDD. The facility has several insignificant space heaters; however, space heaters are not process heaters per the definition of process heaters in 40 CFR 63.7575 and thus are not subject to the requirements of 40 CFR Part 63, Subpart DDDDD.

Emission Point AA-011 is an existing process heater with a heat input capacity of less than 5 MMBTU/hr, designed to burn natural gas. As such, the heater does not have any applicable emission standards and only has to comply with the work practice standards of 40 CFR 63, Subpart DDDDD. The process heater must have a tune-up completed every 5-years. The unit has completed the 1-time energy assessment and its initial tune-up.

40 CFR 63 Subpart HHH - National Emission Standards for Natural Gas Transmission and Storage Facilities

The NESHAP for Natural Gas Transmission and Storage Facilities establishes emission limitations and operating limitations for HAP emissions from applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user, and that are major sources of HAP emissions. The Isola Compressor Station does not operate any glycol dehydrators; therefore; NESHAP HHH does not apply to the facility.

40 CFR 63 Subpart YYYY - National Emission Standards for Stationary Combustion Turbines

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 Isola Compressor Station does not operate any turbines; therefore; NESHAP YYYY does not apply to the facility.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

40 CFR 60 Subpart Kb

The provisions of 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, are standards applicable to vessels used for storing volatile organic liquids. Each of the facility's liquid product storage tanks are below 19,800 gallons; therefore, none of the facility's liquid product storage tanks are subject to NSPS Kb.

40 CFR 60 Subpart GG

The provisions of 40 CFR 60, Subpart GG – Standards of Performance 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 does not operate any turbines; therefore, the compressor station is not subject to any requirements of NSPS GG.

40 CFR 60 Subpart KKK

The provisions of 40 CFR 60, Subpart KKK - Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants (NSPS KKK) apply to affected facilities in onshore natural gas processing plants that commences construction, reconstruction, or modification after January 20, 1984, and on or before August 23, 2011. Since the Isola Compressor Station is not located at an onshore natural gas processing plant, as defined in 40 CFR 60.631, the compressor station is not subject to NSPS KKK.

#### 40 CFR 60 Subpart IIII

The provisions of 40 CFR 60 Subpart IIII - New Source Performance Standards for Compression Ignition Internal Combustion Engines (NSPS IIII) are applicable to stationary compression ignition internal combustion engines that commenced construction, modification, or reconstruction after April 1, 2006. None of the compressor station's engines are compression ignition internal combustion engines, therefore, none of the compressor station's engines are subject to any requirements of NSPS IIII.

#### 40 CFR 60 Subpart JJJJ

The provisions of 40 CFR 60 Subpart JJJJ - New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (NSPS JJJJ) are applicable to stationary spark ignition internal combustion engines that commenced construction, modification, or reconstruction after June 12, 2006.

All ten (10) RICE are stationary spark ignition internal combustion engines but were each constructed prior to the June 12, 2006, effective date. Therefore, none of the compressor stations' RICE are subject to any requirements of NSPS JJJJ.

#### 40 CFR 60 Subpart KKKK

The provisions of 40 CFR 60 Subpart KKKK - New Source Performance Standards for Stationary Combustion Turbines 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. The compressor station does not operate any turbines; therefore, the compressor station is not subject to any requirements of NSPS KKKK.

#### 40 CFR 60 Subpart OOOO

The provisions of 40 CFR 60, Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (NSPS OOOO) are potentially applicable to owners and operators of onshore affected facilities that commence construction, modification, or reconstruction after August 23, 2011. The only potentially affected sources at the Compressor Station are the facility's compressor engines. However, the compressor engines are not new and have not been modified or reconstructed after August 23, 2011; consequently, NSPS OOOO does not apply to the compressor station.

#### 40 CFR 60 Subpart OOOOa

The provisions of 40 CFR 60, Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 (NSPS OOOOa) are potentially applicable to new and modified sources in the oil and gas industry after August 18, 2015. The only potentially affected sources

at the Compressor Station are the facility's compressor engines, with respect to Leak Detection and Repair (LDAR), and pneumatic controllers. However, there have been no new compressors installed at the facility resulting in increased compression, nor has the facility modified any existing compressor engines or pneumatic controllers; consequently, NSPS OOOOa does not apply to the compressor station.

#### SPECIFIC APPLICABLE REQUIREMENTS

All significant air emission combustion sources are subject to state standards for PM and Opacity. Eleven (11) of the air emission sources are fuel burning equipment. Emission Point AA-011 is subject to an SO<sub>2</sub> limit of 4.8 lbs/MMBTU. Emission Points AA-001 and AA-011 are subject to a PM emission limitation of 0.6 lbs/MMBTU, because the sources have a rated heat input less than 10 MMBTU/hr. Emission points AA-002 through AA-010 each have a rated heat input greater than 10 MMBTU/hr and thus are subject to a particulate matter limit of  $E=0.8808 * I^{-0.1667}$  where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour.

The only fuel that is being used for the eleven (11) significant air emission combustion sources is natural gas. Since natural gas is a clean burning fuel, these units should have a large margin of compliance with the PM and Opacity standards. The facility's small comfort space heaters qualify as insignificant activities. These activities are subject to the state standards for PM, SO<sub>2</sub> and Opacity. Since these units combust natural gas and the size of the units are small, no monitoring is proposed for the units. There are no other applicable requirements for the facility's other insignificant activities listed in their Title V application.

Emission Point(s)	Pollutant / Parameter	Limit / Standard	Monitoring Requirements
AA-002 through AA-010	PM	$E=0.8808 * I^{-0.1667}$	Record Type and Quality of Fuel Used
AA-001 and AA-011	PM	0.6 lbs/MMBTU	Record Type and Quality of Fuel Used
AA-011	SO <sub>2</sub>	4.8 lbs/MMBTU	Record Type and Quality of Fuel Used
	HAPs	Operational Requirement	Conduct Tune Ups every 5-years
AA-001	HAPs	Emergency operations	Monitoring of operations