

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on August 08, 2023.

Permit Number: **R30-03100002-2023**
Application Received: **September 29, 2023**
Plant Identification Number: **03-54-031-00002**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Lost River Compressor Station**
Mailing Address: **1700 MacCorkle Ave. SE, 5th Floor, Charleston, WV 25314**

Permit Action Number: *MM01* Revised: *February 21, 2024*

Physical Location: Mathias, Hardy County, West Virginia
UTM Coordinates: 685.5 km Easting • 4,305.1 km Northing • Zone 17
Directions: Traveling on I-81 (in VA), take Exit 257 to US Route 11. Take a left on US Route 11 towards State Route 259. For approximately 23 miles, travel north on State Route 259 to Mathias, WV. Turn right onto Upper Cove Run Road and travel approximately 0.25 miles toward Basore, WV. The entrance to the facility is on the left.

Facility Description

Columbia Gas Transmission, LLC's Lost River Compressor Station is a natural gas compressor station. The compressor station is comprised of five natural gas-fired engines (three 2,700-HP engines, one 4,640-HP engine, and one 4,735-HP engine) to power the compressor units, one natural gas-fired reciprocating engine/emergency generator, four natural gas-fired turbines, one wastewater evaporator boiler, four fuel gas heaters, 88 catalytic heaters, and numerous storage tanks.

This minor modification incorporates the revisions made with the Class II Administrative Update R14-0013F. The revisions include the installation and operation of a 1.172 mmBTU/hr fuel gas heater as well as other administrative changes.

SIC: 4922, NAICS: 486210

Emissions Summary

This minor modification resulted in the following changes in emissions:

Change in Facility-Wide Potential Emissions (tons per year)			
Regulated Pollutant	R14-0013E Potential Emissions	R14-0013F Potential Emissions	Change in Potential Emissions
Carbon Monoxide	533.24	533.66	+ 0.42
Nitrogen Oxides	800.06	800.57	+ 0.51
Particulate Matter (PM/PM ₁₀ /PM _{2.5})	26.56	26.59	+ 0.03
Sulfur Dioxide	1.74	1.74	0.00
Volatile Organic Compounds	125.16	125.19	+ 0.03
Total HAPs	44.75	44.76	+ 0.01

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 533.66 tpy of carbon monoxide, 800.57 tpy of nitrogen oxides, 125.19 tpy of volatile organic compounds, 30.60 tpy of formaldehyde, and 44.76 tpy of aggregate hazardous air pollutants. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.
	45CSR13	NSR Permit Requirements.
	45CSR30	Requirements for Operating Permits.
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance
R14-0013F	December 04, 2023

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

This minor modification incorporates the revisions made with the Class II Administrative Update R14-0013F. The revisions include the installation and operation of a 1.172 mmBTU/hr fuel gas heater as well as other administrative changes.

1. In accordance with an email received on December 21, 2023, the permittee mailing address has been updated to 1700 MacCorkle Avenue, SE, 5th Floor, Charleston, WV 25314.
2. Section 1.0. – Emission Units and Active R13, R14, and R19 Permits
 - a. The Fuel Gas Heater #5 has been added to the Emission Units Table as Emission Unit ID: 001-10 and Emission Point ID: HTR5. This heater is fueled by natural gas and has a maximum design heat input of 1.172 mmBTU/hr.
 - b. The description for the emission unit 001-07 has been updated to Fuel Gas Heater #4.
 - c. The Active R13, R14, and R19 Permits Table has been updated with R14-0013F which was issued on December 04, 2023.
3. Section 3.0. – Facility-Wide Requirements
 - a. HTR5 has been added to the list of emission units subject to the monitoring information requirement of Condition 3.4.1.
4. Section 4.0. – 45CSR14 Permit Requirements, R14-0013F
 - a. The heading for Section 4.0. has been updated as follows:
 - i. The referenced permit has been updated to R14-0013F.

- ii. HTR5 is subject to specific requirements under R14-0013F and, therefore, has been added to the section's heading.
 - b. A reference to the permit application R14-0013F has been added to Condition 4.1.1., and the authority of the condition has been updated to show that HTR5 is subject to the requirement.
 - c. Table 4.1.2.(b) contains emission limits for NO_x and CO from Emission Points E07, E08, and E09. In accordance with R14-0013F, Table 4.1.2.(b) has been updated as follows:
 - i. The individual hourly emission limit for NO_x has been updated to 9.0 g/HP-hr.
 - ii. The individual annual emission limits have been added to the table. Annual emissions of NO_x shall not exceed 7.19 g/HP-hr, and annual emissions of CO shall not exceed 2.60 g/HP-hr.
 - iii. The total combined annual emissions from the emission points have been updated to 562.37 tpy for NO_x and 203.36 tpy for CO.
 - d. The numbering of the paragraphs in Condition 4.1.5. has been corrected.
 - e. Condition 4.1.6. contains requirements for the fuel heaters and the catalytic heaters. Per Condition 4.1.6.d. of R14-0013F, the fuel heater 001-10 is subject to hourly and annual emission limits for CO and NO_x. These limits have been added as paragraph d. of this condition and subsequent paragraphs have been renumbered accordingly.
 - f. Condition 4.1.7. has been updated as follows:
 - i. The paragraph numbers have been corrected.
 - ii. In accordance with Condition 4.1.7. of R14-0013F, paragraph b. has been updated to include the Emission Unit ID of the emergency generator and to specify that the 500 hours per year operation limit applies to periods of non-emergencies.
 - g. Condition 4.1.8. contains the maximum design heat input permitted for each of the fuel gas heaters located at the compressor station. The Fuel Gas Heater #5 has been added to this condition with a maximum design heat input of 1.172 mmBTU/hr.
 - h. The authority of Condition 4.1.9. has been updated due to changes in R14-0013F.
 - i. Condition 4.2.2. has been updated in accordance with Condition 4.2.2. of R14-0013F.
 - j. In Conditions 4.3.1. and 4.3.4., the referenced PSD permit has been updated to R14-0013F.
5. Section 5.0. – Miscellaneous Indirect Natural Gas Heaters and Boilers less than 10 mmBTU/hr
- a. Fuel Gas Heater #5 is an indirect heat exchanger and is considered a fuel burning unit under 45CSR2. Therefore, the heater is subject to the visible emission requirements of 45CSR§§2-3.1. and 3.2., which are included in Section 5.1. of the operating permit, as well as the monitoring requirement of Condition 5.2.1.

As the design heat input of Fuel Gas Heater #5 is below 10 mmBTU/hr, the heater is exempt from the requirements of Sections 4, 5, 6, 8, and 9 of 45CSR2, per 45CSR§2-11.1.
 - b. Due to changes in the numbering of paragraphs in Condition 4.1.6. of R14-0013F, the authority of Condition 5.1.1. has been updated.

6. Section 9.0. – 40 C.F.R. 63, Subpart DDDDD MACT Requirements for Boiler(s) and Process Heater(s)

- a. Fuel Gas Heater #5 (001-10) is a process heater with a design heat input of 1.172 mmBTU/hr and is located at a major source of HAPs. Therefore, 001-10 is subject to 40 C.F.R. Part 63 Subpart DDDDD per 40 C.F.R. §63.7485. The heater is subject to the following requirements already included in Section 9.0. of the operating permit:

Subpart DDDDD Requirement	Title V Condition	R14-0013F Condition	Description
40 C.F.R. §63.7490(a) and (b)	9.1.1.	N/A	001-10 is a new process heater located at a major source of HAPs.
40 C.F.R. §63.7495(a)	9.1.1.	N/A	Compliance with Subpart DDDDD must be demonstrated upon startup of the process heater 001-10.
40 C.F.R. §63.7499(l)	9.1.1.	N/A	001-10 is in the subcategory for units designed to burn gas 1 fuels.
40 C.F.R. §63.7500(a)(1)	9.1.1.	N/A	The process heater is subject to the work practice standards of Item 1 in Table 3 to Subpart DDDDD of Part 63.
40 C.F.R. §63.7500(a)(3)	9.1.1.	N/A	The process heater must be operated in a manner consistent with safety and good air pollution control practices for minimizing emissions.
40 C.F.R. §63.7500(e)	9.1.1.	4.1.8.b.	Process heaters in the units designed to burn gas 1 fuels that have a heat input below 5 mmBTU/hr must complete a tune-up every five years.
40 C.F.R. §63.7510(g)	9.1.1.	N/A	Initial compliance demonstration requirements.
40 C.F.R. §63.7540(a)(10)	9.1.1.	4.1.8.c. and 4.4.5.	Tune-up requirements to demonstrate continuous compliance with Subpart DDDDD.
40 C.F.R. §63.7540(a)(12)	9.1.1.	N/A	A tune-up must be conducted every five years.
40 C.F.R. §63.7540(a)(13)	9.1.1.	4.1.10.	If the process heater is not in operation on the required date for the tune-up, then the tune-up must be conducted within 30 days of startup.
40 C.F.R. §63.7515(d)	9.3.1.	N/A	Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.
40 C.F.R. §§63.7555(a)(1) & (h) and §63.7560	9.4.1.	N/A	Recordkeeping requirements.
40 C.F.R. §63.7530(f) and §§63.7545(e), (e)(1), and (e)(8)	9.5.1.	N/A	Notification of Compliance Status requirements.
40 C.F.R. §63.7545(c)	9.5.1.	N/A	Initial notification requirements.
40 C.F.R. §63.7545(f)	9.5.1.	N/A	Conditional reporting requirement for the notification of alternative fuel use.
40 C.F.R. §§63.7550(a); (b); (c)(1), (c)(5)(i) to (iii), (xiv), & (xvii); and (h)(3)	9.5.1.	4.5.2.	Compliance report requirements.

- b. The requirement of 40 C.F.R. §63.7540(a)(11) was added to R14-0013F as Condition 4.1.9. §63.7540(a)(11) requires biennial tune-ups to be conducted on boilers and process heaters with a heat input capacity below 10 mmBTU/hr. However, this requirement also contains an exception for affected facilities that meet the specifications of §63.7540(a)(12). This exception includes boilers and process heaters with a heat input capacity of less than 5 mmBTU/hr that are included in the subcategory for units designed to burn gas 1. As all the affected facilities located at the Lost River Compressor Station meet these specifications, the boiler 001-03 and the process heaters 001-04, 001-05, 001-07, and 001-10 are subject to the requirements to conduct a tune-up every five years, rather than biennially. Therefore, §63.7540(a)(11) has not been included in the operating permit. The requirements of §63.7540(a)(12) and other related requirements are included in Section 9.0. of the operating permit.
- c. The authority of the following requirements has been updated due to changes made in R14-0013F: §63.7500(e) and §§63.7540(a)(10), (a)(12), & (a)(13).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

None.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Not Applicable

Ending Date: Not Applicable

Point of Contact

All written comments should be addressed to the following individual and office:

Sarah Barron
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41915
sarah.k.barron@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.