West Virginia Department of Environmental Protection Division of Air Quality





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

Permit Number: **R30-09700009-2023** Application Received: **June 29, 2022** Plant Identification Number: **03-54-097-00009** Permittee: **Columbia Gas Transmission, LLC** Facility Name: **Cleveland Compressor Station** Mailing Address: **1700 MacCorkle Avenue, SE, Charleston, WV 25314**

Physical Location: UTM Coordinates: Directions: Kanawha Head, Upshur County, West Virginia 555.40 km Easting • 4,289.22 km Northing • Zone 17 Take I-79 to exit 67. Turn right on US-19N and travel 21 miles. Turn right onto WV-4 N and travel 7.3 miles. Turn right onto WV-20 S and travel approximately 9 miles to the station.

Facility Description

The Cleveland Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day, fifty-two (52) weeks per year. The station has two (2) 10,381-hp turbine engines, two (2) 14,766-hp turbine engines, one (1) 880-hp reciprocating engine/emergency generator, one (1) 0.5 mmBtu/hr line heater, one (1) 1.0 mmBtu/hr fuel gas heater, one (1) 0.68 mmBtu/hr fuel gas heater, one (1) 2,000 gallon pipeline liquids tank, two (2) 1,000 gallon pipeline liquids tanks, and various other insignificant storage vessels.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]				
Regulated Pollutants	Potential Emissions	2021 Actual Emissions		
Carbon Monoxide (CO)	156.12	67.66		
Nitrogen Oxides (NO _X)	106.19	60.84		
Particulate Matter (PM _{2.5})	12.36	2.18		
Particulate Matter (PM ₁₀)	12.36	2.18		
Total Particulate Matter (TSP)	12.36	7.58		
Sulfur Dioxide (SO ₂)	1.33	0.60		
Volatile Organic Compounds (VOC)	43.65	10.70		

 PM_{10} is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2021 Actual Emissions	
Formaldehyde	1.4	0.61	
Combined Miscellaneous HAPs	0.66	0.09	

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 106.19 tons/yr of NOx and 156.12 tons/yr of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Columbia Gas Transmission, LLC's Cleveland Compressor Station 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.

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	
45CSR6	Combustion Of Fuel In Indirect Heat Exchangers Control Of Air Pollution From Combustion Of Refuse.	
43C3K0	Control Of All Pollution From Combustion Of Refuse.	
45CSR11	Standby Plans For Emergency Episodes.	
45CSR13	Permits For Construction, Modification, Relocation And	
	Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits,	
	General Permits, And Procedures For Evaluation	
45CSR16	Standards of Performance for New Stationary Sources Pursuant	
	to 40 CFR Part 60	
45CSR34	Emission Standards For Hazardous Air Pollutants	

WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.	
45CSR30	Operating permit requirement.	
40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal	
	Combustion Engines	
40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	
40 C.F.R. Part 61	Asbestos inspection and removal	
40 CFR Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for	
	Stationary Reciprocating Internal Combustion Engines	
40 C.F.R. Part 82, Subpart F	Ozone depleting substances	
State Only:		
45CSR4	No objectionable odors.	
45CSR17	To Prevent And Control Particulate Matter Air Pollution From	
	Materials Handling, Preparation, Storage And Other Sources Of	
	Fugitive Particulate Matter	

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

Permit or	Date of	Permit Determinations or Amendments That
Consent Order Number	Issuance	Affect the Permit <i>(if any)</i>
R13-2394D	August 8, 2022	

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 is a renewal of the Title V permit which was issued on April 10, 2018 and modified on September 9, 2020 and October 11, 2022. Significant changes to the most recent version of the Title V Permit consist of the following:

- 1) Condition 1.1. Emission Units Table. Corrected the design capacities for tanks A27 and A31.
- 2) Condition 3.7.2. Updated the non-applicable permit shield based on the renewal application permit shield request. Removed 40 CFR 60 Subpart GG and added 40 CFR Part 63 Subpart JJJJJJ.
- Condition 5.1.1.c. Updated the language to reflect the revised requirements in the latest version of 40 CFR 60 Subpart JJJJ.
- 4) Condition 5.3.2. Added the language in sections 1.a..iii.(3)(c), 1.b.iii.(3)(c), and 1.c.iii.(3)(c), in the last column of the table to reflect the revised Table 2 in the latest version 40 CFR 60 Subpart JJJJ.

- 5) Condition 5.5.1. Updated the language in this condition to reflect the revised language in the latest version of 40 CFR 60 Subpart JJJJ.
- 6) Condition 5.5.2. Added the reporting requirements of 40 CFR §60.4245(e) which had been omitted in the current permit.
- Note: Pursuant to 40 CFR §63.6590(c)(1) emergency generator engine 060G5 must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ. No further requirements apply to the engine under 40 CFR 63 Subpart ZZZZ.

Non-Applicability Determinations

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

- a. **45CSR10** *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides:* In accordance with 45CSR§10-10.1., since the line heaters HTR3, HTR6, and HTR7 have a heat input under 10 mmBtu/hr they are exempt from sections 3, 6, 7 and 8 of this rule. The facility is not defined as a manufacturing process and therefore Section 4 of this rule is not applicable to the heaters, engines or turbines. The facility does not combust refinery or process gas streams and therefore Section 5 of this rule is not applicable.
- b. **45CSR21** To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: This facility is not located in one of the affected counties.
- c. **45CSR27 -** *To Prevent and Control the Emissions of Toxic Air Pollutants:* Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."
- d. **40 CFR Part 60 Subpart Dc** *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:* HTR3, HTR6, and HTR7 each have a design heat input capacity less than 10 MMBtu/hr. Therefore, they are not subject to this subpart in accordance with 40 CFR §60.40c(a).
- e. **40 CFR Part 60 Subpart K and Ka** *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (Subpart K) and After May 18, 1978, and Prior to July 23, 1984 (Subpart Ka):* All tanks at the station are below the applicability criteria of 40,000 gallons in capacity. Therefore, they are not subject to Subpart K in accordance with 40 CFR §60.110(a) nor Subpart Ka in accordance with 40 CFR §60.110(a).
- f. 40 CFR Part 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: - All tanks at the station are below 75 m³ in capacity. Therefore, they are not subject to this subpart in accordance with 40CFR§60.110b(a).
- g. 40 CFR Part 60 Subpart KKK Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011): The station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both. As a result, the Station has no affected sources operating within this source category.
- h. **40 CFR Part 60 Subpart IIII -** *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*: There are no compression ignition engines at this facility.

- i. 40 CFR Part 60 Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which Construction, Modification, or Reconstruction Commenced after August 23, 2011 and on or before September 18, 2015. The Cleveland Compressor Station is downstream of the custody transfer point of Columbia's transmission system. Therefore, the centrifugal compressors 06012, 06013, 06014 and 06015 are not subject to this subpart. The Storage Vessel requirements defined for transmission sources were evaluated for pipeline liquids storage vessels A27, A30, and A31 and were found not to be applicable because emissions are well below 6 tpy of VOC accordance with 40 CFR §60.5365(e).
- j. **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.* All potentially affected sources at this facility commenced construction prior to September 18, 2015.
- k. **40 CFR Part 63 Subpart HHH** *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*: The Transmission Station is not subject to Subpart HHH since there are no affected dehydration units utilized at this site and the facility is not a major source of HAP emissions.
- 1. **40 CFR Part 63 Subpart YYYY** *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.* The facility is not a major source of HAP emissions and therefore is exempt from this subpart.
- m. 40 CFR Part 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The facility is not a major source of HAP emissions and therefore is exempt from this subpart.
- n. **40 CFR Part 63 Subpart JJJJJJ** *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.* The line heaters HTR3, HTR6, and HTR7 are fueled by natural gas and therefore pursuant to 40 CFR §63.11195(e) they are not subject to this subpart.
- o. **40 CFR Part 64** *Compliance Assurance Monitoring:* There are no add-on control devices at this facility. Therefore, the provisions of Part 64 are not applicable in accordance with 40 CFR §64.2(a)(2). (*Note the combustion controls for the turbines are not considered control devices per §64.1*)

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:March 29, 2023Ending Date:April 28, 2023

Point of Contact

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

Frederick Tipane West Virginia Department of Environmental Protection Division of Air Quality 601 57th Street SE Charleston, WV 25304 304/414-1910 frederick.tipane@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)

Although there were no comments received during the "Draft" public comment period or during the "Proposed" EPA comment period, a revised version of WV Rule 30 (45CSR30) became effective on March 31, 2023. Due to the Rule 30 revisions, the Title V boilerplate has been revised. Consequently, the revisions have been made to the final permit. The revisions to the permit are as follows:

Condition 2.1.3 – Updated the Rule 30 citation in parenthesis from "45CSR§30-2.12" to "45CSR§30-2.39" and removed the word "such" in the definition.

Conditions 2.17., 3.5.7., and 3.5.8.a.1. – Section 5.7. "Emergency provision" has been removed and replaced with "[Reserved]" in the revised Rule 30. Therefore, the requirements of these permit conditions have likewise been removed and replaced with "reserved."

Condition 3.5.4 - Under the revised Rule 30, certified emissions statements are no longer required to be submitted. Facilities submit their emissions data in the State & Local Emissions Inventory System (SLEIS) and pay fees based on their SLEIS submittal. Therefore, this condition has been revised to reflect these changes.

Condition 3.5.8.a.2 – Replaced "telefax" with "email" as revised in Rule 30.