

Fact Sheet



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

Permit Number: **R30-09700009-2018**
Application Received: **April 13, 2017**
Plant Identification Number: **097-00009**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Cleveland Compressor Station**
Mailing Address: **5151 San Felipe St., Suite 2400, Houston, TX 77056**

Revised: NA

Physical Location: Kanawha Head, Upshur County, West Virginia
UTM Coordinates: 555.40 km Easting • 4,289.22 km Northing • Zone 17
Directions: Travel approximately 9.4 miles south on WV State Rt. 20 from the town of Rock Cave to 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 consists of four (4) 2,000-hp reciprocating engines, 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) 2,000 gallon pipeline liquids tank, and various other insignificant storage vessels.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2016 Actual Emissions
Carbon Monoxide (CO)	195.13	9.30
Nitrogen Oxides (NO _x)	992.43	146.54
Particulate Matter (PM _{2.5})	26.56	2.64
Particulate Matter (PM ₁₀)	26.56	2.64
Total Particulate Matter (TSP)	26.56	3.34
Sulfur Dioxide (SO ₂)	1.53	0.05
Volatile Organic Compounds (VOC)	79.88	9.26

PM_{2.5} and PM₁₀ are components of TSP.

Hazardous Air Pollutants	Potential Emissions	2016 Actual Emissions
Formaldehyde	17.65	3.77
Combined Miscellaneous HAPs	7.81	<1

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

Title V Program Applicability Basis

This facility has the potential to emit 992.43 tons/yr of NO_x, 195.13 tons/yr of CO, 17.65 tons/yr of formaldehyde and 25.46 tons/yr of aggregated HAPs. 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'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 Combustion Of Fuel In Indirect Heat Exchangers
45CSR6	Control Of Air 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 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
40 C.F.R. Part 61	Asbestos inspection and removal
40 CFR Part 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
40 CFR Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
40 C.F.R. Part 82, Subpart F	Ozone depleting substances
<u>State Only:</u>	
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 Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-2394B	May 5, 2016	

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 October 31, 2012 and modified on May 15, 2015 and July 26, 2016. Significant changes to the most recent version of the Title V Permit consist of the following:

- 1) **Permittee Mailing Address (page 1)** – The mailing address has been updated as requested in the permit application.
- 2) **Title V Boilerplate changes**
 - **Conditions 3.5.3., 3.5.5. and 3.5.6.** - These conditions were revised to require electronic submittal of the Title V compliance certifications (annual and semi-annual), self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols to the WV DAQ.
- 3) **Condition 1.1. - Emission Units Table**
 - Removed the 54 catalytic heaters (collectively as HTR5) and the 20 catalytic heaters (collectively as HTR7) from the table. These heaters are insignificant emission sources which meet the criteria of and are included in Item 19 of the “Insignificant Activities” section of the permit application.
 - Relabeled TK01’s emission point ID from “TK01” to “A24” in order to be consistent with the permit renewal application and permit R13-2394B.
 - Removed the “Applicable Requirements” column since the renewal permit has a revised format.
- 4) **Permit layout** – The current permit is formatted like a “General” permit. It consists of the Section 1.0 Emission Units Table with a column that lists specific requirements by reference for the various rules and regulations applicable to the emission units. The applicable requirements column in the emission units table of the permit indicates which of the requirements in Sections 2.0 through 24.0 and Appendix A (permit R13-2394B) of the permit are applicable to each emissions unit.

The renewal permit changes the format of the current permit. Each group of emission units are included in their own section of the permit with the specific applicable requirements spelled out. The specific requirements referenced in the current permit emission units table that have been satisfied (e.g., initial testing, notifications, etc.) and are no longer required to be included in the permit have not been carried over to the renewal permit.

Since all of the combustion sources are fired exclusively with pipeline quality natural gas, any requirements from applicable rules and/or regulations for using alternate fuels have not been included in the renewal permit.

- 5) **Section 7.0 40 CFR 60 Subpart OOOOa** – This Section of the permit contains the requirements from 40 CFR §60.5397a for the collection of fugitive emissions at a compressor station. Pursuant to §60.5365a(j), the addition of the combustion turbine/centrifugal compressors 06014 and 06015 in 2017 triggered a modification to the facility making the requirements of §60.5397a applicable. The two (2) dry seal centrifugal compressors (06014 and 06015), are exempt from the other requirements of this subpart in accordance with 40 CFR §60.5365a(b). The two tanks TK02 and TK03 have potential VOC emissions less than 6 tpy and therefore are not subject to the storage vessel requirements per 40 CFR §60.5365a(e).

Non-Applicability Determinations

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

- 1) **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 and HTR6 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.
- 2) **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.
- 3) **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.”
- 4) **40 C.F.R. Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:** - HTR3 and HTR6 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).
- 5) **40 C.F.R. 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 §60.110a(a).
- 6) **40 C.F.R. 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).
- 7) **40 C.F.R. 60 Subpart GG - Standards of Performance for Stationary Gas Turbines –** The combustion turbines commenced construction, modification, or reconstruction after February 18, 2005 and are regulated under 40 CFR 60 Subpart KKKK. Therefore, they are exempt from the requirements of Subpart GG.
- 8) **40 C.F.R. 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.
- 9) **40 C.F.R. Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines:** There are no compression ignition engines at this facility.
- 10) **40 C.F.R. 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 and 06013 are not subject to this subpart. The Storage Vessel requirements defined for transmission sources were evaluated for pipeline liquids storage vessel TK01 and were found not to be applicable because emissions are well below 6 tpy of VOC accordance with 40 CFR §60.5365(e).

11) 40 C.F.R. 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.

12) 40 C.F.R. 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: February 23, 2018
Ending Date: March 26, 2018

Point of Contact

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

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West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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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.