

# Fact Sheet



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

Permit Number: **R30-08900004-2018**  
Application Received: **April 18, 2017**  
Plant Identification Number: **089-00004**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Flat Top Compressor Station**  
Mailing Address: **5151 San Felipe St., Suite 2400, Houston, TX 77056**

*Revised: N/A*

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Physical Location:	Flat Top, Summers County, West Virginia
UTM Coordinates:	491.094 km Easting • 4,160.159 km Northing • Zone 17
Directions:	From I-77, exit at WV secondary Route 48, turn left to US Route 19. Turn right on US 19 and travel approx. 2.5 miles to secondary Route 19/1. Turn left and proceed to station.

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### Facility Description

The Flat Top Station is a natural gas compression facility covered by SIC 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of one (1) 1.25 MMBtu/hr heating system boiler, one (1) 2.0 MMBtu/hr hot water boiler, one (1) 1.0 MMBtu/hr line heater, one (1) 544 hp reciprocating engine, one (1) 16 hp air compressor, and one (1) 6083 hp turbine engine.

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2016 Actual Emissions</b>
Carbon Monoxide (CO)	105.92	54.88
Nitrogen Oxides (NO <sub>x</sub> )	44.06	23.79
Particulate Matter (PM <sub>2.5</sub> )	0.53	0.13
Particulate Matter (PM <sub>10</sub> )	0.53	0.13
Total Particulate Matter (TSP)	0.53	0.13
Sulfur Dioxide (SO <sub>2</sub> )	0.17	0.05
Volatile Organic Compounds (VOC)	2.79	1.87

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2016 Actual Emissions</b>
Benzene	0.01	<0.01
Toluene	0.03	0
Ethylbenzene	0.01	0
Xylene	0.02	0
n-Hexane	0.03	0
Formaldehyde	0.21	0.04
Acetaldehyde	0.01	0
Total HAPs	0.33	0.04

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

**Title V Program Applicability Basis**

This facility has the potential to emit 105.92 TPY of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2 45CSR6 45CSR11	Indirect Heat Exchangers Open burning prohibited. Standby plans for emergency episodes.
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	45+CSR13	Minor New Source Review permits for stationary sources
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emissions of HAPs
	45CSR40	Control of ozone season nitrogen oxides emissions
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart ZZZZ	RICE MACT
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	40 C.F.R 60 Subpart GG	Standards of Performance for Stationary Gas Turbines
State Only:	45CSR4	No objectionable odors.
	45CSR17	Particulate Fugitive

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 ( <i>if any</i> )
R40-C-2017-7	10/13/2017	
R13-2065G	7/3/2014	

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**

**NOx Compliance Plan (CO-R40-C-2017-7)**

Through a Compliance Order (CO-R40-C-2017-7), the Director has approved a NO<sub>x</sub> Compliance Plan submitted to the Division of Air Quality by the permittee. The NO<sub>x</sub> Compliance Plan, in conjunction with the provisions of this Order, provide certain methodologies by which the Company will achieve and

demonstrate required reductions of nitrogen oxides (NOx) emissions each ozone season. Section 3.9 of this permit specifies the requirements of the compliance plan pertinent to this facility.

**New Permit Format**

The previous permit renewal was written in a general permit-style format. This renewal was reformatted into the standard Title V permit format. The permit sections and the source-specific permit conditions are summarized below.

**Section 4.0: Miscellaneous Indirect Natural Gas Heaters and Boilers less than 10 MMBtu/hr [emission point ID(s): BL2, BL3, H1]**

The following permit conditions apply to the emission points stated above:

Title V Permit Condition	Summary of Condition	Regulatory Citation	R13-2065G Condition
4.1.1.	10% opacity limit	45CSR§2-3.1.	N/A
4.1.2.	Comply with opacity limit by 40 C.F.R. Part 60, Appendix A, Method 9 or COMS	45CSR§2-3.2.	N/A
4.2.1.	Method 9 visible emissions observations	N/A	5.2.1

**Section 5.0: 40 C.F.R. 63, Subpart ZZZZ GACT Requirements for Emergency Reciprocating Internal Combustion Engine(s) RICE [emission point ID(s): G1 and AC1]**

The following permit conditions include the applicable portions of 40 C.F.R. 63, Subpart ZZZZ for the emission points stated above:

Title V Permit Condition	Summary of Condition	Regulatory Citation
5.1.1.	RICE maintenance requirements	45CSR34; 40 C.F.R. §63.6603(a), and Table 2d of 40 CFR 63, Subpart ZZZZ, Item 5
5.1.2.	Comply with this subpart; operate equipment consistent with good safety and air pollution control practices; minimize emissions	45CSR34; 40 C.F.R. § 63.6605
5.1.3.	Continuous compliance	45CSR34; 40 C.F.R. § 63.6640(a) and Table 6 of 40CFR63, Subpart ZZZZ, Item 9
5.1.4.	Emergency RICE requirements	45CSR34; 40 C.F.R. § 63.6640(f)
5.1.5.	General provisions	45CSR34; 40 C.F.R. § 63.6665
5.2.1.a.	Operate equipment according to the manufacturer's emission-related written instructions or develop your own maintenance plan	45CSR34; 40 C.F.R. §63.6625(e)(3)
5.2.1.b.	Non-resettable hour meter	45CSR34; 40 C.F.R. §63.6625(f)
5.2.1.c.	Minimize idle time	45CSR34; 40 C.F.R. §63.6625(h)
5.2.1.d.	Oil analysis program	45CSR34; 40 C.F.R. §63.6625(j)
5.4.1.	Records showing continuous compliance	45CSR34; 40 CFR §63.6655(d), Table 6 of 40 CFR 63, Subpart ZZZZ, Item 9
5.4.2.	Records of maintenance	45CSR34; 40 CFR §63.6655(e)(2)
5.4.3.	Records of hours of operation	45CSR34; 40 CFR §63.6655(f)(2)

**Section 6.0: 40 C.F.R. 60, Subpart GG Requirements for Stationary Gas Turbines [emission point ID(s): E09]**

The following permit conditions include the applicable portions of 40 C.F.R. 60, Subpart GG for the emission point stated above:

<b>Title V Permit Condition</b>	<b>Summary of Condition</b>	<b>Regulatory Citation</b>	<b>R13-2065G Condition</b>
6.1.1.	Calculation of NO <sub>x</sub> emission limit	45CSR16; 40 CFR §60.332(a)(2)	N/A
6.1.2.	Turbines that must comply with condition 6.1.1.	45CSR16; 40 CFR §60.332(c)	N/A
6.1.3.	SO <sub>2</sub> emission limit	45CSR16; 40 CFR §60.333	N/A
6.2.1.	Monitoring NO <sub>x</sub> emissions with CEMS or a previously approved plan	45CSR16; 40 CFR § 60.334(c)	N/A
6.2.2.	Monitoring total sulfur and nitrogen content of fuel and exemptions from sulfur monitoring	45CSR16; 40 CFR § 60.334(h)	N/A
6.2.3.	Frequency of determining sulfur and nitrogen content	45CSR16; 40 CFR § 60.334(i)(2)	N/A
6.2.4.	Excess emissions	45CSR16; 40 CFR § 60.334(j)	N/A
6.3.1.	Performance testing	45CSR16; 40 CFR §§60.335(a)(1)-(3), (b)(1), (b)(9), and (b)(10)	N/A
6.5.1.	Maintaining records required by subpart GG	N/A	5.5.1.
6.5.2.	Comply with applicable provisions of subpart GG and report excess emissions	N/A	5.5.2.

**Section 7.0: 45CSR13, NSR Permit Requirements [emission point ID(s): E09 and AC1]**

The following permit conditions include all conditions from R13-2065G that were not included elsewhere in the permit:

<b>Title V Permit Condition</b>	<b>Summary of Condition</b>	<b>R13-2065G Condition</b>
7.1.1.	Maximum hourly emission rates for 01109	5.1.1.
7.1.2.	Maximum annual emission rates for 01109	5.1.2.
7.1.3.	Natural gas consumption rates for 01109	5.1.3.
7.1.4.	Hours of operation limit for 011A1	5.1.4.
7.1.5.	Comply with 40 CFR §§ 60.332, 60.333, 60.334, 60.335 and notify director of excess emissions	5.1.5.
7.3.1.	Test methods for emissions testing	5.3.1.
7.4.1.	Calculation of monthly emissions for 01109	5.4.1.
7.4.2.	Records of operation for 01109	5.4.2.
7.4.3.	Records of natural gas consumed by 01109	5.4.3.
7.4.4.	Records of hours of operation for 011A1	5.4.4.

**Non-Applicability Determinations**

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

<b>45CSR4</b>	<i>To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Cause or Contributes to an Objectionable Odor or Odors: This State Rule shall not apply to the following source of objectionable odor until such time as feasible control methods are developed: Internal combustion engines.</i>
<b>45CSR10</b>	<i>To Prevent and Control Air Pollution from the Emission of Sulfur Dioxide - Emissions from Indirect Heat Exchangers. WVDAQ has determined that 45CSR10 does not apply to natural gas fired engines. Also, 45CSR10 is not applicable to the facility's boilers and heater because they are fuel burning units less than 10 MMBtu/hr in accordance with the exemptions defined within 45CSR§10-10.1.</i>
<b>45CSR21</b>	<i>To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: All storage tanks at the station, which are listed as insignificant sources, are below 40,000 gallons in capacity which exempts the facility from 45CSR§21-28. The compressor station is not engaged in the extraction or fractionation of natural gas which exempts the facility from 45CSR§21-29. Additionally this site is not located within one of the five designated VOC maintenance counties (Cabell, Kanawha, Putnam, Wayne &amp; Wood)</i>
<b>45CSR27</b>	<i>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."</i>
<b>40 C.F.R. Part 60 Subpart Dc</b>	<i>Standards of Performance for Steam Generating Units: The boilers and line heater at this facility are less than 10 mmBtu/hr design heat capacity which is below the applicability criteria stated in 40CFR§60.40c(a).</i>
<b>40 C.F.R. Part 60 Subpart K and Ka</b>	<i>Standards of Performance for Storage Vessels for Petroleum Liquids: All tanks at the facility are below 40,000 gallons in capacity as specified in 40CFR§§60.110(a) and 60.110a(a).</i>
<b>40 C.F.R. Part 60 Subpart Kb</b>	<i>Standards of Performance for Volatile Organic Liquid Storage Vessels: All tanks at the facility are below 75m<sup>3</sup> (19,813 gallons) in capacity and are not subject to Subpart Kb as specified in 40CFR§60.110b(a).</i>
<b>40 C.F.R. Part 60 Subpart KKK</b>	<i>Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant(s). 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.</i>
<b>40 C.F.R. Part 60 Subpart IIII</b>	<i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The Compressor Station does not have any compression ignition internal combustion engines.</i>
<b>40 C.F.R. Part 60 Subpart JJJJ</b>	<i>Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines. All engines at the facility were constructed, reconstructed, or modified prior to the June 12, 2006 applicability date listed in 40CFR§60.4230(a)(4).</i>
<b>40 C.F.R. Part 60 Subpart OOOO</b>	<i>Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution. The Storage Vessel requirements defined for production sources is not applicable to this site because all vessels were constructed, modified, or commenced reconstruction, prior to August 23, 2011 as stated in 40CFR§60.5365. No other affected sources were identified at this site.</i>
<b>40 C.F.R. Part 60 Subpart OOOOa</b>	<i>Standards of Performance for Crude Oil and Natural Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015. The requirements defined by this NSPS are not applicable to this site because all affected sources commenced construction prior to September 18, 2015 in accordance with the applicability criteria defined within 40CFR§60.5365a.</i>

<b>40 C.F.R. Part 60 Subpart KKKK</b>	<i>Standards of Performance for Stationary Combustion Turbines. The provisions of this subpart are not applicable to this facility's turbine because it predates the NSPS applicability date of February 18, 2005 defined by §60.4305(a)</i>
<b>40 C.F.R. Part 63 Subpart HHH</b>	<i>National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. The Compressor Station is not subject to Subpart HHH since the station's function is to compress production gas and it is not a natural gas transmission and storage facility as defined under 40 C.F.R. § 63.1270. Additionally, the station does not utilize dehydration and is not a major source of HAPs.</i>
<b>40 C.F.R. Part 63 Subpart YYY</b>	<i>National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines. This facility is not a major source of HAPs, therefore this subpart does not apply.</i>
<b>40 C.F.R. Part 63 Subpart JJJJJ</b>	<i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The facility is not subject to 40 C.F.R. Part 63 Subpart JJJJJ since the boilers and line heater are fueled by natural gas as defined in 40CFR§63.11195(e)</i>
<b>40 C.F.R. Part 64</b>	<i>Compliance Assurance Monitoring (CAM). The compliance assurance monitoring provisions of Part 64 are not applicable due to there being no add-on controls at this facility, as stated in 40CFR§64.2(a)(2).</i>

**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: Tuesday, November 14, 2017  
 Ending Date: Thursday, December 14, 2017

**Point of Contact**

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

Rex Compston, P.E.  
 West Virginia Department of Environmental Protection  
 Division of Air Quality  
 601 57<sup>th</sup> Street SE  
 Charleston, WV 25304  
 Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478  
[Rex.E.Compston@wv.gov](mailto:Rex.E.Compston@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)**

The draft version of this permit was reviewed by the US EPA and subject to public notice under Permit Number R30-08900004-2017. The final day of the EPA review period was December 29, 2017. This date was on a Friday, and it was unable to be signed by the Director until January 2, 2018. Therefore, the permit number was changed to R30-08900004-2018.