

# Fact Sheet



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

Permit Number: **R30-03900047-2016**  
Application Received: **February 26, 2016**  
Plant Identification Number: **039-00047**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Lanham Compressor Station**  
Mailing Address: **1700 MacCorkle Avenue, SE**  
**Charleston, WV 25314**

*Revised: N/A*

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Physical Location: Rocky Fork, Kanawha County, West Virginia  
UTM Coordinates: 438.0 km Easting • 4258.8 km Northing • Zone 17  
Directions: Traveling I-64, exit at Cross Lanes and turn right onto State Route 622.  
Continue on Route 622 to the station which is located at the intersection  
of State Route 622 and Secondary Route 7.

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### Facility Description

The Lanham compressor station compresses natural gas for pipeline transmission. The facility operates under SIC code 4922. This facility uses one (1) heating system boiler, one (1) natural gas line heater, eight (8) reciprocating engines/ integral compressors, one (1) reciprocating engine/air compressor, and two (2) reciprocating engines/generators.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2014 Actual Emissions</b>
Carbon Monoxide (CO)	264.28	23.79
Nitrogen Oxides (NO <sub>x</sub> )	1900.76	216.13
Particulate Matter (PM <sub>2.5</sub> )	17.05	4.22
Particulate Matter (PM <sub>10</sub> )	17.05	4.22
Total Particulate Matter (TSP)	17.05	4.22
Sulfur Dioxide (SO <sub>2</sub> )	0.34	0.06
Volatile Organic Compounds (VOC)	54.62	10.47

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

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2014 Actual Emissions</b>
Benzene	0.89	- <sup>1</sup>
Toluene	0.44	- <sup>1</sup>
Ethylbenzene	0.05	- <sup>1</sup>
Xylene	0.13	- <sup>1</sup>
n-Hexane	0.23	- <sup>1</sup>
Formaldehyde	24.50	4.81
Acetaldehyde	3.45	- <sup>1</sup>
Total HAPs	29.69	4.81

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

<sup>1</sup>None reported.

### Title V Program Applicability Basis

This facility has the potential to emit 264.28 TPY of CO, 1900.76 TPY of NO<sub>x</sub>, 24.50 TPY of Formaldehyde, and 29.69 TPY of Total 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 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	Particulate matter emissions.
	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	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	Hazardous air pollutants.
	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 63, Subpart DDDDD	Boiler MACT
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR17	Fugitive particulate emissions.

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> )
None	N/A	

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**

**Section 4.0: Heating System Boiler and Line Heater**

This section of the permit covers the Heating System Boiler and Line Heater (emission point ID: BL3 and H1). BL3 replaced BL2, which was listed in the previous Title V permit for this facility. BL3 was installed on 12/13/2012, and it is considered a new boiler under 40 C.F.R. 63, Subpart DDDDD. BL3 was not permitted under any NSR permits. At the request of the permittee, this section includes all applicable requirements excluding the requirements of 40 C.F.R. 63, Subpart DDDDD (these are covered in Section 6.0). The following requirements are included in this section:

Title V Permit Condition	Summary of Condition	Regulatory Citation
4.1.1	No smoke or particulate emissions greater than 10% opacity.	45CSR§2-3.1.
4.1.2	Compliance with the visible emission requirements determined using 40 C.F.R. Part 60, Appendix A, Method 9 or continuous opacity monitoring systems.	45CSR§2-3.2.
4.2.1	Method 22 visible emissions observations.	45CSR§30-5.1.c

**Section 5.0: 40 C.F.R. 63, Subpart ZZZZ MACT Requirements for Reciprocating Internal Combustion Engine(s) RICE**

This section of the permit includes all applicable requirements from 40 C.F.R. 63, Subpart ZZZZ.

Eight (8) compressor engines (E01, E02, E03, E04, E05, E06, E07, E08) are existing non-emergency SI 2SLB engines rated over 500 hp at a major source of HAPs and do not have any applicable requirements from this subpart as specified in 40 CFR §§ 63.6590(b)(3)(i) and 63.6600(c).

The Ingersoll-Rand PVG-6 Reciprocating Engines/generators (G1 and G2) and the Wisconsin W4-1770 reciprocating engine/air compressor (AC1) are existing emergency SI engines rated at 275 hp, 306 hp, and 35 hp, respectively, at a major source of HAPs and are subject to the following requirements:

- The emission limitations listed in 40 CFR § 63.6602 and Table 2c (Item 6) to 40 CFR Part 63, Subpart ZZZZ.
- The monitoring requirements listed in 40 CFR §§ 63.6625(e), (f), (h), and (j).
- The continuous compliance requirements listed in 40 CFR §§ 63.6605 & 63.6640 and Table 6 (Item 9) to 40 CFR 63, Subpart ZZZZ.
- The recordkeeping requirements listed in 40 CFR §§ 63.6655(a), (d), (e), and (f).
- The reporting requirements listed in Footnote 1 of Table 2c to 40 CFR Part 63, Subpart ZZZZ and 40 CFR § 63.6650(h).
- The general provisions of 40 CFR Part 63. Except per 40 CFR § 63.6645(a)(5), the following do not apply: 40 CFR §§ 63.7(b) and (c); 63.8(e), (f)(4) and (f)(6); and 63.9(b)-(e), (g) and (h).

The requirements of 40 CFR§63.6650(h) were not included in this permit. These requirements do not apply since the engines and compressor are not being operated for the purposes specified in 40CFR§§63.6640(f)(2)(ii) and (iii) or 40CFR§63.6640(f)(4)(ii).

The following requirements were included in this section:

<b>Title V Permit Condition</b>	<b>Summary of Condition</b>	<b>Regulatory Citation</b>
5.1.1	Engine maintenance and startup requirements	45CSR34; 40 C.F.R. § 63.6602, and Table 2c, Item 6 and 7
5.1.2	Operate and maintain the stationary RICE and after-treatment control device (if any) according to manufacturer's emission-related instructions or develop your own maintenance plan	45CSR34; 40 C.F.R. § 63.6625(e)
5.1.3	Install a non-resettable hour meter	45CSR34; 40 C.F.R. § 63.6625(f)
5.1.4	Minimize the engine's time spent at idle during startup and minimize the engine's startup time	45CSR34; 40 C.F.R. § 63.6625(h)
5.1.5	Oil analysis program	45CSR34; 40 C.F.R. § 63.6625(j)
5.1.6	General requirements	45CSR34; 40 C.F.R. § 63.6605
5.1.7	Continuous compliance demonstration	45CSR34; 40 C.F.R. § 63.6640(a), (b), and (e) and Table 6, Item 9
5.1.8	Requirements for Emergency Stationary RICE	45CSR34; 40 C.F.R. § 63.6640(f)
5.1.9	General provisions	45CSR34; 40 C.F.R. §§ 63.6645(a)(5) and 63.6665
5.4.1	Records showing compliance with emission and operating limitations	45CSR34; 40 C.F.R. §63.6655(a)
5.4.2	Records showing continuous compliance	45CSR34; 40 C.F.R. §63.6655(d)
5.4.3	Maintenance records	45CSR34; 40 C.F.R. §63.6655(e)(2)
5.4.4	Records of hours of operation	45CSR34; 40 C.F.R. §63.6655(f)(1)
5.5.1	Annual reporting requirements	45CSR34; 40 C.F.R. §63.6650(h)

**Section 6.0: 40 C.F.R. 63, Subpart DDDDD MACT Requirements for Heating System Boiler and Line Heater**

40 C.F.R. 63, Subpart DDDDD applies to the Heating System Boiler and Line Heater (Emission Point ID: BL3 and H1). BL3 replaced BL2, which was listed in the previous Title V permit for this facility. BL3 was installed on 12/13/2012, and it is considered a new boiler under 40 C.F.R. 63, Subpart DDDDD since it was ordered after the 6/4/2010 new source date. This section of the permit includes all applicable requirements from this subpart as shown in the following table:

<b>Title V Permit Condition</b>	<b>Summary of Condition</b>	<b>Regulatory Citation</b>
6.1.1	Work practices and good air pollution control practices	45CSR34; 40 CFR§§63.7500(a)(1) and (3), and Table 3, Items 1 and 4
6.1.2	Tune-up schedule	45CSR34; 40 CFR§63.7500(e)
6.1.3	Initial tune-up and one-time energy assessment (Existing boiler) (H1)	45CSR34; 40 CFR§63.7510(e)
6.1.4	Initial compliance (New boiler) (BL3)	45CSR34; 40 CFR§63.7510(g)
6.1.5	Tune-up requirements	45CSR34; 40 CFR§63.7540(a)(10)
6.1.6	Tune-up schedule	45CSR34; 40 CFR§63.7540(a)(12)
6.3.1	Performance tune-up	45CSR34; 40 CFR§63.7515(d)
6.4.1	Keep a copy of each notification and report.	45CSR34; 40 CFR§63.7555(a)(1)
6.4.2	Requirements for maintaining records.	45CSR34; 40 CFR§63.7560
6.5.1	Initial compliance demonstration	45CSR34; 40 CFR§§63.7530(e) and (f)
6.5.2	Notification of compliance status	45CSR34; 40 CFR§§63.7545(e)(1) & (8)
6.5.3	Report submission dates	45CSR34; 40 CFR§§63.7550(b) and (b)(5)
6.5.4	Compliance report requirements	45CSR34; 40 CFR§§63.7550(c)(1), (c)(5)(i)-(iii), (c)(xiv), and (c)(xvii)

### Non-Applicability Determinations

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

45CSR4	<i>To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Cause or Contributes to an Objectionable Odor or Odors:</i> 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.
45CSR21	<i>To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds:</i> All storage tanks at the Lanham station, which are listed as insignificant sources, are below 40,000 gallons in capacity, which exempts the facility from 45CSR§21-28. Lanham station is not engaged in the extraction or fractionation of natural gas, which exempts the facility from 45CSR§21-29.
45CSR27	<i>To Prevent and Control the Emissions of Toxic Air Pollutants:</i> 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.”
40 C.F.R. Part 60 Subpart JJJJ	<i>Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines.</i> All SI engines located at this site were installed before June 12, 2006. Thus, these engines are not subject to 40 C.F.R. Part 60 Subpart JJJJ. [40CFR§60.4230(a)(4)]
40 C.F.R. Part 60 Subpart OOOO	<i>Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution.</i> The Storage Vessel requirements defined for transmission sources are not applicable to this site because all vessels were constructed, modified, or reconstructed prior to August 23, 2011. [40CFR§60.5365]
40 C.F.R. Part 60 Subpart Dc	<i>Standards of Performance for Steam Generating Units.</i> The heating system boiler and line heater at this facility are both less than 10 MMBtu/hr design heat capacity, which makes them below the applicability criteria stated in [40CFR§60.40c(a)].
40 C.F.R. Part 60 Subpart K & Ka	<i>Standards of Performance for Petroleum Liquid Storage Vessels.</i> All tanks at the Lanham station are below the applicability criteria of 40,000 gallons in capacity as stated in [40CFR§§60.110(a) and 60.110a(a)]
40 C.F.R. Part 60 Subpart Kb	<i>Standards of Performance for Volatile Organic Liquid Storage Vessels.</i> All tanks at the Lanham station are below the applicability criteria of 19,813 gallons in capacity as stated in [40CFR§60.110b(a)]
40 C.F.R. Part 60 Subpart KKK	<i>Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant(s).</i> The Lanham 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 Lanham Station has no affected sources operating within this source category.
40 C.F.R. Part 63 Subpart HHH	<i>National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.</i> The Lanham Transmission Station is not subject to Subpart HHH since there are no affected dehydration units being utilized.
40 C.F.R. Part 64 CAM	The compliance assurance monitoring provisions of Part 64 are not applicable due to there being no add-on controls at this facility. [40CFR§64.2(a)(2)]

### **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: Monday, May 9, 2016  
Ending Date: Wednesday, June 8, 2016

### **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)**

Not applicable.