

# Fact Sheet



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

Permit Number: **R30-09900014-2017**  
Application Received: **August 22, 2016**  
Plant Identification Number: **03-54-099-00014**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Kenova Compressor Station**  
Mailing Address: **1700 MacCorkle Avenue, SE, Charleston, WV 25314**

*Revised: NA*

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Physical Location: Kenova, Wayne County, West Virginia  
UTM Coordinates: 360.9 km Easting • 4,248.0 km Northing • Zone 17  
Directions: Traveling I-64 West from Charleston, take the Kenova-Ceredo exit for US Route 52. Follow US 52 South approximately 2 miles to Route 1 intersection. The station is located on Route 1 near the intersection of Route 1 and Route 52.

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### Facility Description

The Kenova Station is a natural gas transmission and oil and gas production facility covered by Standard Industrial Code (SIC) 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of four (4) 2000-hp and four (4) 1100-hp natural gas fired reciprocating compressor engines, a wastewater evaporation injection system and numerous storage tanks of various sizes. On-site support equipment includes one (1) 500-hp emergency generator, one (1) 6.3 MMBtu/hr heating system boiler and one (1) 1.5 MMBtu/hr line heater. The facility also has a 1,000 gallon mercaptan tank.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2015 Actual Emissions</b>
Carbon Monoxide (CO)	232.40	24.8847
Nitrogen Oxides (NO <sub>x</sub> )	1,341.65	419.4528
Particulate Matter (PM <sub>2.5</sub> )	18.26	8.3763
Particulate Matter (PM <sub>10</sub> )	18.26	8.3763
Total Particulate Matter (TSP)	18.26	8.3763
Sulfur Dioxide (SO <sub>2</sub> )	0.37	0.1668
Volatile Organic Compounds (VOC)	41.69	16.6533

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

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2015 Actual Emissions</b>
Acetaldehyde	2.86	NA
Benzene	0.90	NA
Ethylbenzene	0.04	NA
Formaldehyde	9.46	4.58
n-Hexane	0.19	NA
Toluene	0.40	NA
Xylene	0.12	NA
Total HAPs	19.14	4.6

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

### Title V Program Applicability Basis

This facility has the potential to emit 232.40 tons per year of Carbon Monoxide and 1,341.65 tons per year Nitrogen Oxides. 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	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.
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	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	NSR Permits
	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	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. Part 61	Asbestos inspection and removal
	40CFR63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for 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 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 ( <i>if any</i> )
R13-2251E	October 2, 2015	

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**

There have been no changes made to the equipment at this facility since the last permit modification. All changes made during this permit renewal were the result of changing the permit format or updating the applicable requirements.

Section 3.0 Facility-Wide Requirements

Due to the new permit format, the fugitive emission requirements from 45CSR17 and R13-2251E were included as 3.1.9, 3.1.10, and 3.1.11.

#### Section 4.0 Source Specific Requirements [emission point ID(s): BL2 and H1]

There were no changes made to the applicable requirements for BL2 and H1 which have been gathered into Section 4.0.

#### 5.0 Source Specific Requirements [emission point ID(s): E01, E02, E03, E04, E05, E06, E07, E08, and G3]

Engines E01 through E04 are existing 2SLB engines greater than 500 HP located at an area source of HAPs. As such they are subject to the following requirements of 40 C.F.R. 63 Subpart ZZZZ: 40 C.F.R. §63.6603(a), Table 2d of 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §63.6605, 40 C.F.R. §§63.6625(e), (h), and (j), 40 C.F.R. §§63.6640(a) and (e), Table 6 to 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §§63.6655(a), (d), and (e), and the General Provisions of 40 C.F.R. 63 except 40 C.F.R. §§63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §§63.9(b)-(e), (g) and (h).

Engines E05-E08 have requirements from R13-2251E that are included in the Title V permit as 5.1.1, 5.1.4, 5.1.5, 5.1.6, 5.1.7, 5.1.11, 5.1.14, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.3.1, 5.3.2, 5.3.3, 5.4.1, 5.4.3, 5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5, 5.5.6, 5.5.7, 5.5.8.

Engines E05-E08 are existing 4SRB engines greater than 500 HP located at an area source of HAPs and have already demonstrated initial compliance. As such they are subject to the following requirements of 40 C.F.R. 63 Subpart ZZZZ: 40 C.F.R. §63.6603(a), Table 2d of 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §§63.6625(b) and (h), 40 C.F.R. §§63.6605(a) and (b), 40 C.F.R. §63.6635, 40 C.F.R. §§63.6640(a), (b), (c), (e), Table 6 of 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §§63.6655(a), (b), and (d), 40 C.F.R. §63.6650(a), (b), (c), (d), (e), and (f), and the General Provisions of 40 C.F.R. 63.

Emergency Generator G3 has requirements from R13-2251E that are included in the Title V permit as 5.1.2, 5.1.3, 5.1.5, 5.1.6, 5.1.7, 5.1.9, 5.1.10, 5.1.11, 5.1.12, 5.1.13, 5.1.14, 5.2.5, 5.3.1, 5.4.1, 5.4.3, 5.4.4, 5.4.5, 5.5.2, and 5.5.9.

Emergency Generator G3 is an existing emergency SI engine ≤500 HP located at an area source of HAPs. As such they are subject to the following requirements of 40 C.F.R. 63 Subpart ZZZZ: 40 C.F.R. §63.6603(a), Table 2d of 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §§63.6625(e), (f), (h), and (j), 40 C.F.R. §63.6605, 40 C.F.R. §§63.6640(a), (e), and (f), Table 6 to 40 C.F.R. 63 Subpart ZZZZ, 40 C.F.R. §§63.6655(a), (d), (e), and (f), General Provisions of 40 C.F.R. 63 except 40 C.F.R. §§63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §§63.9(b)-(e), (g) and (h).

#### Section 6.0 Source Specific Requirements [emission point ID(s): FL1]

The Mercaptan Tank A24 has an R13-2251E and 45CSR4 requirement to operate the vapor recovery system during filling operations which was included as condition 6.1.1.

### **Non-Applicability Determinations**

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

- a. 45CSR4; *To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors* – According to 45CSR §4-7.1, this rule shall not apply to the following sources of objectionable odor until such time as feasible control methods are developed: Internal combustion engines.

- b. 45CSR10; *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides* – Is not applicable to the facility’s boiler and line heater because the maximum design heat input is less than 10 MMBtu/hr.
- c. 45CSR21; *To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds* – All storage tanks at the facility, 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 that facility from 45CSR§21-29.
- d. 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.”
- e. 40 C.F.R. 60 Subpart Dc; *Standards of Performance for Steam Generating Units* – The boiler and heater at this facility are less than 10 mmBtu/hr; Hence Subpart Dc is not applicable.
- f. 40 C.F.R. 60 Subparts K, Ka; *Standards of Performance for Storage Vessels for Petroleum Liquids* – All tanks at Kenova station are below 40,000 gallons in capacity.
- g. 40 C.F.R. 60 Subpart Kb; *Standards of Performance for Volatile Organic Liquid Storage Vessels* – All tanks at Kenova station are below 75m<sup>3</sup> in capacity.
- h. 40 C.F.R. 60 Subpart KKK; *Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plant* – Kenova 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.
- i. 40 C.F.R. 60 Subpart IIII; *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* – There are no compression ignition engines at the facility.
- j. 40 C.F.R. 60 Subpart JJJJ; *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* – Engines at the facility were constructed, reconstructed, or modified prior to June 12, 2006.
- k. 40 C.F.R. 60 Subpart KKKK; *Standards of Performance for Stationary Combustion Turbines* – There are no turbines at the facility.
- l. 40 C.F.R. 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 storage vessel requirements defined for transmission sources are not applicable to this site because there are no affected source storage vessels constructed, modified, or reconstructed after August 23, 2011 and before September 18, 2015 as stated in 40 C.F.R. §60.5365(e).
- m. 40 C.F.R. Subpart OOOOa; *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015* – The requirements defined by this NSPS are not applicable to the facility because all affected sources commenced construction prior to September 18, 2015 in accordance with 40 C.F.R. §60.5365a.
- n. 40 C.F.R. 63 Subpart HHH; *National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities* – The facility does not have a glycol dehydration unit and is therefore not subject to the requirements of this subpart.

- o. 40 C.F.R. 63 Subpart YYYY; *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines* – There are no turbines at the facility.
- p. 40 C.F.R. 63, Subpart DDDDD; *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* – This subpart does not apply to the facility since it is not a major source of HAPs as defined in 40 C.F.R. §63.7575.
- q. 40 C.F.R. 63 Subpart JJJJJ; *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* – This subpart does not apply to the facility since the heating system boiler and line heater are fueled by natural gas as defined in 40 C.F.R. §63.11195(e).
- r. 40 C.F.R. 64 – The engines E01-E04 and G3, boiler, and heater do not have any add-on controls, and the NSCR control devices for Engines E05-E08 are exempt under 40 C.F.R. §64.2(b)(1)(i); therefore, in accordance with 40 C.F.R §64.2(a), CAM is not applicable to this facility. The Mercaptan tank is not a major source; therefore, CAM is not applicable per 40 C.F.R §64.2(a)(3).

### **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, January 24, 2017  
Ending Date: Thursday, February 23, 2017

### **Point of Contact**

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

Robert Mullins  
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. 1243• Fax: 304/926-0478  
Robert.A.Mullins@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.