

# Fact Sheet



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

Permit Number: **R30-10300010-2018**  
Application Received: **April 18, 2017**  
Plant Identification Number: **03-54-10300010**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Smithfield Compressor Station**  
Mailing Address: **1700 MacCorkle Avenue, S.E., Charleston, WV 25314**

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Physical Location: Smithfield, Wetzel County, West Virginia  
UTM Coordinates: 539.68 km Easting • 4,370.03 km Northing • Zone 17  
Directions: Traveling north of U.S. Route 19 from Clarksburg to the intersection with State Route 20, turn left onto Route 20. Proceed west on Route 20 for approximately 1.8 miles past the town of Folsom to the station, which is on the left side of the road and visible.

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### **Facility Description**

Columbia Gas Transmission, LLC, Smithfield Compressor Station is a natural gas transmission facility covered by a Standard Industrial Classification (SIC) of 4922 and a North American Industrial Classification System (NAICS) of 486210. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of one (1) 3.4 MMBtu/hr heating system boiler, three (3) indirect-fired line heaters, two (2) 1,500 HP natural gas fired reciprocating engines, one (1) 6,736 HP compressor turbine, one (1) 4,433 HP combustion turbine, one (1) 530 HP natural gas fired reciprocating engine with generator for emergency use only, and numerous storage tanks of various sizes.

**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)	101.82	7.85
Nitrogen Oxides (NO <sub>x</sub> )	553.03	12.97
Particulate Matter (PM <sub>2.5</sub> )	4.25	0.36
Particulate Matter (PM <sub>10</sub> )	4.25	0.36
Total Particulate Matter (TSP)	4.25	0.36
Sulfur Dioxide (SO <sub>2</sub> )	12.36	0.13
Volatile Organic Compounds (VOC)	25.21	2.03
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2016 Actual Emissions</b>
Benzene	0.06	0
Toluene	0.11	0
Ethylbenzene	0.02	0
Xylene	0.05	0
n-Hexane	0.17	0
Formaldehyde	6.95	0.29
Acetaldehyde	1.07	0
Other HAPs	1.33	0
Total HAPs	9.76	0.29

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

**Title V Program Applicability Basis**

This facility has the potential to emit 553.03 tons of Nitrogen Oxides (NO<sub>x</sub>) per year and 101.82 tons of Carbon Monoxide (CO) per year. 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	Control of particulate matter emissions from indirect heat exchangers.
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	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Operating permit requirement.
	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	Emission Standards for HAPs
	40 C.F.R. Part 60, Subpart JJJJ	NSPS for Stationary Spark Ignition Internal Combustion Engines
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	40 CFR Part 60, Subpart GG	Standards of Performance for Stationary Gas Turbines
	40 CFR60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
	40 C.F.R. 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. 63, Subpart ZZZZ	NESHAPs MACT for Stationary RICEs
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> )
R13-2064G	08/24/2015	

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 to equipment or emission units since the last permit modification R30-10300010-2012(SM02). The format of the permit has been updated to the standard Title V format instead of the general permit type format.

Per Company’s request, the Emission Units Table was updated. The Company conducted an internal review and provided detailed information about each unit’s emission unit description in their Title V renewal application. Model #s for Emission Point IDs H2 and G3 were revised in the Emission Units Table. Emission Unit Descriptions for E01 and E02 were updated. The installation year for E02 was also updated.

**Section 10.0** – includes the requirements of 40 C.F.R. 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*, applicable to the facility after the Combustion Turbine/Compressor (Emission Point ID- E06) was installed in 2016 (after the subpart applicability date of September 18, 2015). The only section applicable to the facility is 40 C.F.R.§60.5397a (LDAR requirements). Turbine E06 is exempt from the “wet seal” centrifugal compressor requirements as a result of being “dry seal”. The fugitive emission components became subject to LDAR in accordance with 40 C.F.R.§60.5365a(j)(1).

**Non-Applicability Determinations**

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

<p><b>45CSR4</b></p>	<p><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.</p>
<p><b>45CSR10</b></p>	<p><i>To Prevent and Control Air Pollution from the Emission of Sulfur Dioxide :</i> This State Rule is not applicable to the facility’s boiler and heaters because the maximum design heat input (MDHI) is less than 10 mmBtu/hr.</p>
<p><b>45CSR21</b></p>	<p><i>To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds:</i> All storage tanks at the station, are listed as insignificant sources and 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).</p>
<p><b>45CSR27</b></p>	<p><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.”</p>

<b>40 C.F.R. Part 60 Subpart Dc</b>	<i>Standards of Performance for Steam Generating Units:</i> The heaters and boiler have a maximum design heat input capacity of less than 10 MMBtu/hr, which is below the applicability threshold defined within 40CFR§60.40c(a).
<b>40 C.F.R. Part 60 Subpart OOOO</b>	<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 there are no affected source storage vessels constructed or reconstructed after August 23, 2011 as stated in accordance with 40CFR§60.5365. The compressor requirements defined for transmission sources are not applicable to this site because the facility is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment as stated in accordance with 40CFR§60.5365(b). No other affected sources were identified at this site.
<b>40 C.F.R. Part 60 Subpart K and Ka</b>	<i>Standards of Performance for Petroleum Liquid Storage Vessels.</i> All tanks at the station are below the applicability criteria of 40,000 gallons in capacity as stated in 40CFR§60.110(a) and 40CFR§60.110a(a).
<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).</i> 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.
<b>40 C.F.R. Part 60 Subpart IIII</b>	<i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.</i> The station does not utilize compression ignition internal combustion engines.
<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.</i> The station is not subject to Subpart HHH since the station does not utilize dehydration and is not a major source of HAPs.
<b>40 C.F.R. Part 63 Subpart YYYY</b>	<i>National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.</i> This facility is not a major source of HAPs, therefore this subpart does not apply.
<b>40 C.F.R. Part 63 Subpart DDDDD</b>	<i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.</i> The provisions of this subpart do not apply to this Station since it does not exceed major source HAP thresholds as defined in 40CFR§63.7575.
<b>40 C.F.R. Part 63 Subpart JJJJJJ</b>	<i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.</i> The facility is not subject to 40 C.F.R. Part 63 Subpart JJJJJJ since the line heaters and boiler are fueled by natural gas as defined in 40CFR§63.11195(e).
<b>40 C.F.R. Part 64</b>	<i>Compliance Assurance Monitoring.</i> The compliance assurance monitoring provisions of Part 64 are not applicable due to there being no add-on controls at this facility per 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: Wednesday, February 28, 2018  
Ending Date: Friday, March 30, 2018

**Point of Contact**

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

Beena Modi  
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. 1228 • Fax: 304/926-0478  
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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.