

Fact Sheet



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

Permit Number: **R30-10300010-2023**
Application Received: **August 17, 2022**
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**

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.

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) 440 HP natural gas fired reciprocating engine with generator for emergency use only, and numerous storage tanks of various sizes.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2022 Actual Emissions
Carbon Monoxide (CO)	163.74	3.74
Nitrogen Oxides (NO _x)	561.96	2.75
Particulate Matter (PM _{2.5})	2.91	0.14
Particulate Matter (PM ₁₀)	2.91	0.14
Total Particulate Matter (TSP)	2.91	0.14
Sulfur Dioxide (SO ₂)	0.13	0.01
Volatile Organic Compounds (VOC)	32.02	2.38
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2022 Actual Emissions
Benzene	0.06	<0.01
Toluene	0.11	<0.01
Ethylbenzene	0.02	<0.01
Xylene	0.05	<0.01
n-Hexane	0.17	<0.01
Formaldehyde	6.95	0.01
Other HAPs	1.88	<0.01
Total HAPs	9.24	0.02

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

Title V Program Applicability Basis

This facility has the potential to emit 561.96 tons of Nitrogen Oxides (NO_x) per year and 163.74 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. 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>)
R13-2064H	January 3, 2023	

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

❖ Title V Boilerplate changes:

- **Condition 2.1.3** - The section of Rule 30 that defines Secretary changed in a previous version of Rule 30 and we failed to update this condition. Also, in the recently revised Rule 30, the word "such" was removed.

- **Condition 2.11.4.** – The reference notation was changed from 45CSR§30-2.39 to 45CSR§30-2.40 because this definition was renumbered in 45CSR30.
 - **Condition 2.22.1.** - The reference notation was changed to delete 45CSR38 because it has been repealed.
 - **Condition 3.5.3.** - The EPA contact information and address were updated.
 - **Conditions 2.17, 3.5.7, and 3.5.8.a.1** - The section for Emergency was removed and replaced with Reserved in condition 2.17. Section 5.7 of Rule 30 which pertained to emergencies and affirmative defense was removed in the revised Rule 30.
 - **Condition 3.5.4** - Under the revised Rule 30, certified emissions statements are no longer required to be submitted. Facilities have been submitting their emissions data in SLEIS and paying fees based on their SLEIS submittal, so this requirement was no longer needed.
 - **Condition 3.5.8.a.2** - Under the revised Rule 30, "telefax" was replaced with "email".
- ❖ Section 6.0 was updated as follows:
- **Condition 6.1.3** – Since the horsepower rating of the emergency generator G3 was updated from a Waukesha VGF24GL (530 hp) to a Waukesha VGF18GL (440 hp), the requirements of 40 C.F.R. §60.4237(a) were replaced with §60.4237(b).
 - **Condition 6.1.4** – This condition was updated because of changes to the regulation.
 - **Condition 6.2.1** - Since the horsepower of the emergency generator G3 is less than 500 HP, this condition was updated.
 - **Condition 6.3.1** - Since the horsepower of the emergency generator G3 is less than 500 HP, the requirements of 40 C.F.R. §60.4243(b)(2)(ii) were replaced with §60.4243(b)(2)(i).
 - **Condition 6.5.1** - This condition was updated because of changes to the regulation.
 - **Condition 6.5.2** – Since the horsepower rating of the emergency generator G3 is less than 500 HP, this condition was removed.
 - **Condition 6.5.3** – This condition was renumbered as condition 6.5.2 because previous condition 6.5.2 was removed.
- ❖ This renewal includes the following changes from R30-10300010-2018(MM01) in this permit.
- R30-10300010-2018(MM01) incorporates the changes from R13-2064H to correct the model and horsepower rating of the emergency generator G3 from a Waukesha VGF24GL (530 hp) to a Waukesha VGF18GL (440 hp).
- As a result of this change, Permit sections 1.1, 9.1.9, and 9.1.10 were revised to correct the model, horsepower, fuel usage, and emissions of Generator G3.
- Emission Unit ID of the emergency generator G3 was updated in Conditions 9.1.11 and 9.4.4.
- The correction of the model and horsepower of the generator resulted in a slight decrease in the facility's potential to emit (PTE).

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.
45CSR10	<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.
45CSR21	<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 & Wood).
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 Dc	<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).
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 there are no affected source storage vessels constructed or reconstructed after August 23, 2011, and on or before September 18, 2015 as stated in accordance with 40CFR§60.5365. No other affected sources were identified at this site.
40 C.F.R. Part 60 Subpart OOOOa	<i>Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015.</i> The permittee has demonstrated to the WV Division of Air Quality and US Environmental Protection Agency Region III that construction commenced on Emission Unit 09806 - Solar Centaur 40 prior to the September 18, 2015 applicability date of 40 CFR 60 Subpart OOOOa. Therefore, the facility is not subject to the leak detection and repair requirements of this regulation.
40 C.F.R. Part 60 Subpart K and Ka	<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).
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 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.

40 C.F.R. Part 60 Subpart IIII	<i>Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.</i> The station does not utilize compression ignition internal combustion engines.
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 station is not subject to Subpart HHH since the station does not utilize dehydration and is not a major source of HAPs.
40 C.F.R. Part 63 Subpart YYYY	<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.
40 C.F.R. Part 63 Subpart DDDDD	<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.
40 C.F.R. Part 63 Subpart JJJJJ	<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 JJJJJ since the line heaters and boiler are fueled by natural gas as defined in 40CFR§63.11195(e).
40 C.F.R. Part 64	<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: May 17, 2023
 Ending Date: June 16, 2023

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 57th Street SE
 Charleston, WV 25304
 Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478
Beena.j.modi@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.