

Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on October 31, 2012.

Permit Number: **R30-10300010-2012**
Application Received: **August 12, 2013**
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**

Permit Action Number: *SM01* Revised: April 29, 2014

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 48621. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. After this modification, the station will consist of one (1) 3.4 MMBtu/hr heating system boiler, three (3) indirect-fired line heaters, two (2) 1500 HP natural gas fired reciprocating engines, one (1) 6,736 HP compressor turbine, one (1) 530 HP natural gas fired reciprocating engine with generator for emergency use only, and numerous storage tanks of various sizes.

This modification is for the removal of the 250 HP Waukesha VSG11GSI Emergency Generator (Emission Point ID: G2) and the installation of a 530 HP Waukesha VGF24GL Emergency Generator (Emission Point ID G3) and a 0.30 MMBtu/hr indirect-fired line heater (Emission Point ID H3).

Emissions Summary

This modification will result in the following change in potential emission:

Regulated Pollutants	Change in Potential Emissions (TPY)
Carbon Monoxide (CO)	-1.44
Nitrogen Oxides (NO _x)	-1.22
Particulate Matter (PM ₁₀)	+0.01
Total Particulate Matter (TSP)	+0.01
Sulfur Dioxide (SO ₂)	+0.001
Volatile Organic Compounds (VOC)	+0.06
Hazardous Air Pollutants	Potential Emissions
Formaldehyde	+0.04
Total HAPs	+0.04

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 535.84 tons of Nitrogen Oxides (NO_x) 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Indirect Heat Exchangers
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60.
	45CSR30	Operating permit requirement.

	45CSR34	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
	40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
State Only:	45CSR4	No objectionable odors.

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>)
R13-2064F	12/03/2013	
CO-R1-C-2007-4A(2005)	03/01/2007	

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

This modification incorporates changes made in R13-2064F. The following changes were made to the Title V Permit to reflect changes made in R13-2064F and to update the 40 C.F.R. 63 Subpart ZZZZ requirements due to the regulation being amended on January 30, 2013.

- Emission Units and Listing of Applicable Requirements.
 - Added the R13-2064F Conditions 3.0, 4.0, and 6.0 to the applicable requirements of Emission Units: BLR1, HTR1, HTR2 .
 - Added Emission Unit HTR3 to the Emission Units Table with the following applicable requirements: Section 4.0; Section 21.0; R13-2064F (Conditions 3.0, 4.0 and 6.0). This heater (H3) is subject to 10% opacity under 45CSR2 but not subject to other sections of 45CSR2 because it is less than 10MMBtu/hr. Since the heater is less than 10 MMBtu/hr it is also not subject to 45CSR10.
 - Updated the applicable requirements of E01 and E02, specifically the 40 C.F.R. 63 Subpart ZZZZ requirements that changed due to the January 30, 2013 amendment to the rule. E01 and E02 are existing stationary non-emergency natural gas fired remote 4SLB engines located at an area source.
 - The remote status was determined using the definition of Remote Stationary RICE from 40 C.F.R. §63.6675 and a map provided by Columbia Gas Transmission of

their Smithfield Compressor Station area showing the pipe lines and the locations and type of buildings along the pipe lines. From the given map it was determined that along any one mile segment of pipe that there were less than ten buildings intended for human occupancy. The western-most north traveling pipe line out of the compressor station has two dwellings along the one mile segment starting at the compressor station. The middle-north traveling pipe line splits in its first mile out of the compressor station into western and eastern north traveling branches that have 2 and 6 dwellings respectively in their one mile segment from the station. The southwestern traveling branch has 0 dwellings. The other two pipe lines attached to the compressor station have two dwellings.

- In the Applicable requirements of emission unit 09805, updated the R13-2064E conditions to the R13-2064F conditions.
- Emission Unit 098G2 will be in operation until the construction of Emission Unit 098G3 is complete, and upon startup of Emission Unit 098G3 emission unit 098G2 will be permanently removed. The applicable requirements for engine G2 were updated to reflect that it has been removed in R13-2064F permit. However, at the request of the company the limitations and standards from R13-2064E for engine G2 were incorporated in the Title V permit under Section 22.1.1 and 22.1.2 to cover the period of operation of G2 while engine G3 is installed.
- Added Emission Unit 098G3 to the Emission Units Table with the following applicable requirements: Sections 6.2.1, 6.3.1, 6.4.1; Section 10.0 40 C.F.R. 63 Subpart ZZZZ, specifically §63.6590(c); Section 11.0 40 C.F.R. 60 Subpart JJJJ, specifically §§ 60.4230(a), (b), & (e); §§ 60.4233(e) & (h); § 60.4234; §§ 60.4243(b), (d), & (e); § 60.4244; §§60.4245(a), (b), (c), & (d);Section 21.0; R13-2064F (Conditions 3.0, 4.0, 7.0, 8.0, 9.1.2.).
 - Emission Unit 098G3 is a 530 hp Waukesha VGF24GL RICE (G3) that was manufactured after January 1, 2009 and is subject to emission standards, operating standards, performance testing, and notification and recordkeeping requirements of 40 C.F.R. 60 Subpart JJJJ. The following emission standards must be met:

Pollutant	Emission Standard
Nitrogen Oxides	2 grams per HP-hour
Carbon Monoxide	4 grams per HP-hour
Volatile Organic Compounds	1 grams per HP-hour

According to the manufacturer's data, this engine will meet these standards.

Because this engine will not be certified by the manufacturer, the permittee will be required to perform an initial performance test within 180 days from startup, and subsequent testing every 8,760 hours or 3 years, whichever comes first.

- For Emission Unit 098G3 compliance with 40 C.F.R. 63 Subpart ZZZZ will be demonstrated by compliance with 40 C.F.R. 60 Subpart JJJJ. Emission unit 098G3 is an emergency RICE at an area source.
- In the Appendix replaced R13-2064E with R13-2064F.

Non-Applicability Determinations

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

40 C.F.R. 60 Subpart Dc (Standards of Performance for Small Industrial-Commercial Steam Generating Units) is not applicable since the proposed heater (H3) is rated at 0.30MMBtu/hr which is less than the 10MMBtu/hr to 100MMBtu/hr range that the rule applies to.

40 C.F.R. 60 Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distributing) is not applicable to the proposed new equipment (no affected facilities proposed).

40 C.F.R. 64 Compliance Assurance Monitoring (CAM) – None of the current or proposed equipment utilize add-on controls. Therefore, the Smithfield Compressor Station is exempt from CAM requirements.

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: March 12, 2014
Ending Date: April 11, 2014

Point of Contact

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

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Division of Air Quality
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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.