

Fact Sheet



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

Permit Number: **R30-04300002-2012**
Application Received: **November 2, 2011**
Plant Identification Number: **03-54-043-00002**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Hubball Compressor Station**
Mailing Address: **1700 MacCorkle Avenue, S.E., Charleston, WV 25314**

Physical Location: Hubball, Lincoln County, West Virginia
UTM Coordinates: 395.9 km Easting • 4228.7 km Northing • Zone 17
Directions: Take Exit 11 from I-64 to 10 south. Travel 10 south to Branchland. At Branchland cross the bridge to secondary route 36/1, then go approximately 2 miles south on 36/1 to Hubball station.

Facility Description

The Columbia Gas Transmission, LLC, Hubball Station is a natural gas compressor facility covered by a Standard Industrial Classification (SIC) of 1311 and a North American Industry Classification System Code (NAICS) of 211111. The station is upstream of the Kenova Extraction facility. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 1,320 HP and one (1) 600 HP natural gas fired reciprocating engines, one (1) 229 HP reciprocating engine with generator, one (1) triethylene glycol (TEG) dehydration unit with a NATCO SHV flare and glycol reboiler, and numerous storage tanks of various sizes.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2011 Actual Emissions
Carbon Monoxide (CO)	72.23	17.24
Nitrogen Oxides (NO _x)	104.3	25.59
Particulate Matter (PM ₁₀)	0.63	0.02
Total Particulate Matter (TSP)	0.63	0.02
Sulfur Dioxide (SO ₂)	0.92	0.26
Volatile Organic Compounds (VOC)*	23.99	9.70
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2011 Actual Emissions
Total HAPs*	11.81	2.33
<p><i>Some of the above HAPs may be counted as PM or VOCs.</i></p> <p>HAPs are not speciated because no applicability was triggered. The triggers are 10 TPY for a single HAP and 25 TPY of Total HAPs. The HAP with the highest PTE is formaldehyde at 6.03 TPY. Benzene has a PTE of 3.06 TPY.</p> <p>* Includes enforceable flare for control of emissions associated with dehydration unit.</p>		

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

Title V Program Applicability Basis

This facility has the potential to emit 104.3 tons per year of Nitrogen Oxides (NO_x). 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	Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR10	SO ₂ Emissions
	45CSR11	Standby plans for emergency episodes.

	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR40	Control of Ozone Season Nitrogen Oxides Emissions
	40 C.F.R. Part 61 Subpart M	Asbestos inspection and removal
	40 C.F.R. Part 63 Subpart HH	National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
	40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary 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 Particular Matter Air Pollution from Material Handling, Preparation , Storage and other sources of 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 (if any)
CO-R1-C-2007-4A (2005)	March 1, 2007	
R13-2479B	November 7, 2005	

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 B," which may be downloaded from DAQ's website.

Determinations and Justifications

Columbia Gas Transmission, LLC, Hubball Compressor Station was previously registered under General Permit R30-NGGP-2007 for Natural Gas Compressor Facilities. The Division of Air Quality did not renew the general permit for natural gas compressor facilities, therefore this facility's renewal will be issued as a source-specific permit. The source-specific permit includes various requirements which are potentially applicable to natural gas compressor stations. The applicable requirements column in the Section 1.0 Emission Units Table of the permit indicates which of the requirements in Sections 2.0 through 24.0 are applicable to each emissions unit.

Since the previous Title V renewal, the engines at the Hubball Compressor Station have become subject to 40 C.F.R. Part 63 Subpart ZZZZ.

40 C.F.R. Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Columbia Gas Transmission, LLC, Hubball Compressor Station has two (2) 1320 HP and one (1) 600 HP reciprocating engines with integral compressors, and a 229 HP reciprocating engine with generator subject to the area source provisions under 40 C.F.R. Part 63 Subpart ZZZZ. The reciprocating engines are existing sources constructed prior to June 12, 2006. The facility shall comply with all applicable requirements of 40 C.F.R. Part 63 Subpart ZZZZ by October 19, 2013 per 40 C.F.R. § 63.6595 (a).

Although non-major area source MACT provisions under 40 C.F.R. Part 63 Subpart ZZZZ are excluded from state delegation in 45CSR34, these requirements are applicable requirements under 45CSR§30-2.6.d, which includes any requirement subject to §112 of the CAA.

The 1320 HP engines (01601 and 01602) are existing non-emergency spark-ignition (SI) four-stroke lean burn (4SLB) Ingersoll-Rand 48KVS Reciprocating Engines/Integral Compressors greater than 500 HP that combust pipeline quality natural gas. The 600 HP engine (01603) is an existing non-emergency spark-ignition (SI) two-stroke lean burn (2SLB) Clark RA-6 Reciprocating Engine/Integral Compressor greater than 500 HP that combusts pipeline quality natural gas. The 229 HP engine (016G2) is an existing emergency spark-ignition (SI) Waukesha VSG11GSI-F11GSI Reciprocating Engine/Generator less than or equal to 500 HP that combusts pipeline quality natural gas. Engines (01601 and 01602) are subject to the emission limitations for a non-emergency, non-black start 4SLB stationary RICE greater than 500 HP as specified in Table 2d, Item 8 (limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O₂; or reduce CO emissions by 93 percent or more) and the operating limitations in Table 2b. Engine (01603) is subject to the maintenance requirements for a non-emergency, non-black start 2SLB stationary RICE greater than 500 HP as specified in Table 2d, Item 6 (every 4,320 hours change oil/filter; inspect spark plugs; and inspect hoses and belts, and replace as necessary). Engine (016G2) is subject to the requirements for an emergency stationary SI RICE less than 500 HP as specified in Table 2d, Item 5 (every 500 hours of operation or annually, whichever comes first, change oil/filter and inspect hoses and belts; inspect spark plugs every 1000 hours of operation or annually, whichever comes first).

Following, are the applicable RICE MACT requirements according to the "Summary of Requirements" table provided by EPA.

Emission Unit ID	Emission Limitations	Operating Limitations	Performance Testing	Monitoring Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Record-keeping Requirements	Reporting Requirements
01601 01602	§ 63.6603 Table 2d, Item 8	§ 63.6603 Table 2b	§ 63.6612 § 63.6615 § 63.6620 Table 3 Table 4 Table 5	§§ 63.6625 (a), (b), (h)	§ 63.6630 Table 5	§ 63.6605 § 63.6635 § 63.6640	§ 63.6645	§§ 63.6655 (a), (b), (d)	§§ 63.6650 (a) – (f)
01603	§ 63.6603 Table 2d, Item 6	None	None	§§ 63.6625 (e), (h), (j)	None	§ 63.6605 § 63.6640	None	§§ 63.6655 (a), (b), (d), (e)	None
016G2	§ 63.6603 Table 2d, Item 5	None	None	§§ 63.6625 (e), (f), (h), (j)	None	§ 63.6605 § 63.6640	None	§§ 63.6655 (a), (b), (d), (e), (f)	Footnote 2 of Table 2d

Emission Unit ID	General Provisions (40 C.F.R. Part 63)
01601 01602	Yes
01603 016G2	Yes, except per 40 C.F.R. § 63.6645 (a) (5), the following do not apply: 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).

40 C.F.R. Part 63 Subpart HH - National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities

Since the previous Title V renewal, it has been determined that the CGT-Hubball Compressor Station is an affected area source subject to 40 C.F.R. Part 63 Subpart HH.

The facility is exempt from the control, monitoring, recordkeeping and reporting requirements as outlined in 40 C.F.R. § 63.764 (c) (1) and the applicable standards of 40 C.F.R. § 63.764 (d) if the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year as stated in 40 C.F.R. § 63.764 (e) (1) (ii). The benzene emissions from the glycol dehydration unit are determined using GRI-GLYCalc or by direct measurement per 40 C.F.R. § 63.772 (b) (2). The facility shall maintain records as specified in 40 C.F.R. § 63.774 (d) (1) (i) or (ii). In accordance with 40 C.F.R. § 63.775 (c) (8), Hubball is exempt from any reporting requirements.

The Weil-McLain, Model J-34, heating system boiler (BLR2) and the Wisconsin THD reciprocating engine with air compressor (016A1) have been removed from service and not included in this renewal permit.

Columbia Gas Transmission, LLC has not made any modifications that would trigger a PSD permit; therefore the requirements of the GHG tailoring rule do not apply.

Non-Applicability Determinations

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

45CSR§4-7.1	45CSR4 shall not apply to the following sources of objectionable odor until such time as feasible control methods are developed: Internal combustion engines. [State-Enforceable Only]
45CSR10	To Prevent and Control Air Pollution from the Emission of Sulfur Dioxide - Emissions from Indirect Heat Exchangers. WVDEP has determined that 45CSR10 does not apply to natural gas fired engines. Also, 45CSR10 is not applicable to the facility's dehydrator reboiler because it is less than 10 MMBtu/hr.
45CSR21	To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: All storage tanks at Hubball Compressor Station are below 40,000 gallons in capacity which exempts the facility from 45CSR§21-28. Hubball Compressor Station is not engaged in the extraction or fractionation of natural gas which exempts the facility from 45CSR§21-29.
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."
40 C.F.R. Part 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Since Hubball Compressor Station's dehydrator reboiler is less than 10 MMBtu/hr, 40 C.F.R. Part 60 Subpart Dc does not apply.
40 C.F.R. 60 Subparts K, Ka	Standards of Performance for Storage Vessels for Petroleum Liquids. All tanks at the Hubball Compressor Station are below 40,000 gallons in capacity.
40 C.F.R. 60 Kb Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels. All tanks at Hubball Compressor Station are below 75 m ³ in capacity.
40 C.F.R. Part 60 Subpart GG	Standards of Performance for Stationary Gas Turbines does not apply to the Hubball Compressor Station since the facility does not have a combustion turbine.
40 C.F.R. 60 Subpart KKK	Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant. Hubball Compressor 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.
40 C.F.R. Part 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The Hubball Compressor Station does not have any compression ignition internal combustion engines.
40 C.F.R. Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The Hubball Compressor Station's reciprocating engines were manufactured before the July 12, 2006 applicability date for 40 C.F.R. Part 60 Subpart JJJJ.
40 C.F.R. Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines does not apply to the Hubball Compressor Station since the facility does not have a combustion turbine.
40 C.F.R. Part 60 Subpart OOOO	Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution. This station has not commenced construction, modification, or reconstruction after August 23, 2011. Therefore, it is not subject to this subpart.
40 C.F.R. Part 63 Subpart HHH	National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. The Hubball Compressor Station is not subject to Subpart HHH since the station's function is to compress production gas and it is not a natural gas transmission and storage facility as defined under 40 C.F.R. § 63.1270. Additionally, the station is not a major source of HAPs.
40 C.F.R. Part 63 Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines does not apply to the Hubball Compressor Station since the facility does not have a combustion turbine.

40 C.F.R. Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters does not apply to the Hubball Compressor Station since the station is not a major source of HAPs.
40 C.F.R. Part 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The facility is not subject to 40 C.F.R. Part 63 Subpart JJJJJ since the boiler is fueled by natural gas.
40 C.F.R. Part 64	This is the second permit renewal for this facility. The facility was found not to be subject to Compliance Assurance Monitoring (CAM) at the time of the first renewal since the facility did not have any pollutant specific emissions units (PSEU) that satisfied all of the applicability criteria requirements of 40 C.F.R § 64.2 (a). There have been no changes to any PSEUs at the facility since the first renewal that have resulted in a source satisfying the applicability requirements of 40 C.F.R. § 64.2 (a) and becoming subject to CAM.

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: September 12, 2012
Ending Date: October 12, 2012

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

Wayne Green
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

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.

Point of Contact

Wayne Green
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1258 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.