

Fact Sheet



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

Permit Number: **R30-04300002-2017**
Application Received: **April 18, 2017**
Plant Identification Number: **043-00002**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Hubball Compressor Station**
Mailing Address: **5151 San Felipe St., Suite 2400, Houston, TX, 77056**

Revised: N/A

Physical Location:	Hubball, Lincoln County, West Virginia
UTM Coordinates:	396.016 km Easting • 4228.873 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]		
Regulated Pollutants	Potential Emissions	2016 Actual Emissions
Carbon Monoxide (CO)	71.94	3.97
Nitrogen Oxides (NO _x)	103.98	23.88
Particulate Matter (PM _{2.5})	0.59	0.02
Particulate Matter (PM ₁₀)	0.59	0.02
Total Particulate Matter (TSP)	0.59	0.02
Sulfur Dioxide (SO ₂)	0.87	0.03
Volatile Organic Compounds (VOC)	25.28	12.06

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2016 Actual Emissions
Benzene	0.29	0.02
Toluene	0.42	0.15
Ethylbenzene	0.08	0.03
Xylene	0.66	0.03
n-Hexane	0.31	0.13
Formaldehyde	5.95	1.82
Acetaldehyde	0.93	0
Other HAPs	1.20	0
Total HAPs	9.84	2.19

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

Title V Program Applicability Basis

This facility has the potential to emit 103.98 TPY of 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.
	45CSR34	Emissions standards for HAPs
	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 Particulate 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)
R13-2479C	3/9/2015	
CO-R1-C-2007-4A	3/1/2007	

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

New Permit Format

The previous permit renewal was written in a general permit-style format. This renewal was reformatted into the standard Title V permit format. The permit sections and the source-specific permit conditions will be summarized below.

Section 4.0: Miscellaneous Indirect Natural Gas Heaters and Boilers less than 10 MMBtu/hr [emission point ID(s): BL1]

The following conditions are applicable to BL1:

Condition Number	Summary of Condition	Regulatory Citation
4.1.1	10% opacity limit	45CSR§2-3.1.
4.1.2	Compliance with visible emission limit: Method 9 or COMS	45CSR§2-3.2.
4.2.1	Method 22 observations	45CSR§30-5.1.c.

Section 5.0: 40 C.F.R. 63, Subpart ZZZZ GACT Requirements for Emergency Reciprocating Internal Combustion Engine(s) RICE at an Area HAP Source [emission point ID(s): G2]

The following conditions are applicable to G2:

Condition Number	Summary of Condition	Regulatory Citation
5.1.1.	Engine maintenance requirements	45CSR34; 40 C.F.R. §63.6603(a) and Table 2d, Item 5
5.1.2.	General compliance requirements	45CSR34; 40 C.F.R. §63.6605
5.1.3.	Continuous compliance requirements	45CSR34; 40 C.F.R. §§63.6640(a), (b), and (e)
5.1.4.	Emergency RICE requirements	45CSR34; 40 C.F.R. §63.6640(f)
5.1.5.	General provisions	45CSR34; 40 C.F.R. §63.6665
5.2.1.	Operate RICE according to manufacturer’s emission-related instructions, use of non-resettable hour meter, minimize idle time, and oil analysis program.	45CSR34; 40 C.F.R. §§63.6625(e)(3), (f), (h), and (j)
5.4.1.	Records of notifications, reports, malfunctions, performance tests and evaluations, maintenance, and corrective actions.	45CSR34; 40 CFR §63.6655(a)
5.4.2.	Records showing continuous compliance.	45CSR34; 40 CFR §63.6655(d)
5.4.3.	Records of maintenance proving that permittee operated RICE per manufacturer’s instructions.	45CSR34; 40 CFR §63.6655(e)(2)
5.4.4.	Records of hours of operation	45CSR34; 40 CFR §63.6655(f)(2)

Section 6.0: 40 C.F.R. 63, Subpart ZZZZ GACT Requirements for 2SLB Reciprocating Internal Combustion Engine(s) RICE at an Area HAP Source [emission point ID(s): E03]

The following conditions are applicable to E03:

Condition Number	Summary of Condition	Regulatory Citation
6.1.1.	Engine maintenance requirements	45CSR34; 40 C.F.R. §63.6603(a) and Table 2d of 40CFR63, Subpart ZZZZ, Item 6
6.1.2.	General compliance requirements	45CSR34; 40 C.F.R. §63.6605
6.1.3.	Continuous compliance requirements	45CSR34; 40 C.F.R. §63.6640(a)
6.1.4.	General provisions	45CSR34; 40 C.F.R. §63.6665
6.2.1.	Operate RICE according to manufacturer's emission-related instructions, minimize idle time, and oil analysis program.	45CSR34; 40 C.F.R. §§63.6625(e)(5), (h), and (j)
6.4.1.	Records of notifications, malfunctions, performance tests and evaluations, maintenance, and corrective actions.	45CSR34; 40 CFR §63.6655(a)
6.4.2.	Records showing continuous compliance.	45CSR34; 40 CFR §63.6655(d)
6.4.3.	Records of maintenance proving that permittee operated RICE per maintenance plan.	45CSR34; 40 CFR §63.6655(e)(3)
6.5.1.	Report instances where requirements were not met.	45CSR34; 40 CFR §63.6640(b)
6.5.2.	Report instances where requirements were not met.	45CSR34; 40 CFR §63.6640(e)

Section 7.0: 40 C.F.R. 63, Subpart ZZZZ GACT Requirements for 4SLB Reciprocating Internal Combustion Engine(s) RICE greater than 500 hp at an Area Non-Remote HAP Source [emission point ID(s): E01, E02]

The following conditions are applicable to E01 and E02:

Condition Number	Summary of Condition	Regulatory Citation
7.1.1.	Installation of an oxidation catalyst	45CSR34; 40 C.F.R. §63.6603(a), Table 2d of 40CFR63, Subpart ZZZZ, Item 9
7.1.2.	General compliance requirements	45CSR34; 40 C.F.R. §63.6605
7.1.3.	Initial compliance demonstration	45CSR34; 40 C.F.R. §§63.6612(a) and 63.6630(a) Table 5 of 40CFR63, Subpart ZZZZ, Item 13
7.1.4.	Minimize idle time	45CSR34; 40 C.F.R. §63.6625(h)
7.1.5.	Annual compliance demonstration	45CSR34; 40 C.F.R. §63.6640(a), Table 6 of 40CFR63, Subpart ZZZZ, Item 14
7.1.6.	General provisions	45CSR34; 40 C.F.R. §63.6665
7.2.1.	Monitoring requirements	45CSR34; 40 C.F.R. § 63.6635
7.2.2.	CPMS requirements	45CSR34; 40 C.F.R. § 63.6625(b)
7.3.1.	Initial compliance demonstration requirements	45CSR34; 40 C.F.R. §63.6630(e)
7.3.2.	Annual compliance demonstration requirements	45CSR34; 40 C.F.R. §63.6640(c)
7.4.1.	Records of notifications, malfunctions, performance tests and evaluations, maintenance, and corrective actions.	45CSR34; 40 CFR §63.6655(a)
7.4.2.	Records for each CEMS or CPMS.	45CSR34; 40 CFR §63.6655(b)
7.4.3.	Records showing continuous compliance.	45CSR34; 40 CFR §63.6655(d)
7.5.1.	Notification of intent to conduct a performance test	45CSR34; 40 CFR §63.6645(g)
7.5.2.	Annual compliance demonstration reporting	45CSR34; 40 CFR §63.6650(a), Table 7 of 40CFR63, Subpart ZZZZ, Item 3
7.5.3.	Compliance report contents	45CSR34; 40 CFR §§63.6650(b) through (f)
7.5.4.	Report instances where requirements were not met.	45CSR34; 40 CFR §63.6640(b)
7.5.5.	Report instances where requirements were not met.	45CSR34; 40 CFR §63.6640(e)

Section 8.0: Source-Specific Requirements for Natural Gas Dehydration Controlled by a Flare and Meeting the Exemption Requirement of 40 C.F.R. 63 Subpart HH [emission point ID(s): FL1]

The following conditions are applicable to FL1:

Condition Number	Summary of Condition	Regulatory Citation
8.1.1.	Particulate matter emission limits	45CSR§6-4.1
8.1.2.	No unburned or partially burned emissions	45CSR§6-4.5
8.1.3.	Flare requirements	45CSR13, R13-2479, 4.1.9; 40CFR§60.18; 45CSR16; 45CSR§30-5.1.c
8.1.4.	Permittee not required to conduct a flare compliance assessment for concentration of sample and tip velocity until the Director requests	45CSR30-5.1.c
8.1.5.	Flare visible emissions no greater than 20% ¹	45CSR§6-4.3
8.1.6.	Flare opacity of 40% allowed during startup ¹	45CSR§6-4.4
8.1.7.	No objectionable flare odors	45CSR§6-4.6; 45CSR13, R13-2479, Condition 4.1.16
8.1.8.	Testing to justify minor source status	45CSR34; 40CFR§63.10(b)(3)
8.1.9.	General standards	45CSR34; 40CFR§63.764(a), (b), (d), (e)
8.1.10.	1 TPY benzene limit	45CSR§30-5.1.c
8.2.1.	Dehydration unit monitoring to demonstrate compliance with area source status	45CSR§30-5.1.c
8.2.2.	Flare pilot flame monitoring	45CSR§30-5.1.c
8.3.1.	Wet natural gas sampling	45CSR§30-5.1.c
8.3.2.	Opacity testing	45CSR§30-5.1.c
8.3.3.	Determination of actual average benzene emissions	45CSR34; 40CFR§63.772 (b)(2)(i)
8.4.1.	Records of monitoring data, wet gas sampling, and GLYCalc emission estimates.	45CSR§30-5.1.c
8.4.2.	Records of pilot flame absence.	45CSR§30-5.1.c
8.4.3.	Records of flare design evaluation	45CSR§30-5.1.c
8.4.4.	Records of opacity tests.	45CSR§30-5.1.c
8.4.5.	Records of actual average benzene emissions	45CSR34; 40CFR§63.774(d)(1)(ii)
8.5.1.	Reporting of visible emission limit violations	45CSR§30-5.1.c

¹These conditions are streamlined with condition 8.1.3.b which allows no visible emissions.

Section 9.0: 45CSR13 NSR Permit Requirements, R13-2479 [emission point ID(s): E01, E02, E03, G2, BL1 & FL1]

This section addresses all remaining R13-2479C requirements that are not addressed elsewhere in this permit:

Condition Number	Summary of Condition	R13-2479C Condition
9.1.1.	01601 emission limits	4.1.1.
9.1.2.	01602 emission limits	4.1.2.
9.1.3.	01603 emission limits	4.1.3.
9.1.4.	01603 limited to 4,380 hours/year	4.1.4.
9.1.5.	01601 and 01602 average hourly and annual fuel limit	4.1.5.
9.1.6.	01603 average hourly and annual fuel limit	4.1.6.
9.1.7.	Flare operated at all times emissions vented to it	4.1.7.
9.1.8.	Flare emission limits	4.1.8.
9.1.9.	Flare shall reduce HAP emissions by at least 95%	4.1.9.
9.1.10.	Minimum heating value of gas flared	4.1.10.
9.1.11.	016G2 shall not operate more than 1,000 hours/year	4.1.11.
9.1.12.	016G2 emission limits	4.1.12.
9.1.13.	Sulfur content of fuel gas	4.1.13.
9.1.14.	Sulfur content of fuel gas	4.1.14.
9.1.15.	Objectionable odors	4.1.15.
9.1.16.	45CSR6 requirements	4.1.16.
9.1.17.	Operation and Maintenance of Air Pollution Control Equipment	4.1.17.
9.1.18.	Hydrogen sulfide concentration limit.	Condition not included but referenced in condition 4.3.1.
9.2.1.	Monitoring of flare pilot flame	4.2.1.
9.3.1.	Fuel gas sampling for hydrogen sulfide	4.3.1.
9.3.2.	Fuel analyses and records for total sulfur	4.3.2.
9.3.3.	NOx, VOC, and CO test methods	4.3.3.
9.3.4.	Test protocol submission	4.3.4.
9.4.1.	Record of maintenance of air pollution control equipment	4.4.2.
9.4.2.	Record of malfunctions of air pollution control equipment	4.4.3.
9.4.3.	Hours of operating for engine 01603	4.4.4.
9.4.4.	Records for the engines 01601, 01602, and 01603	4.4.5.
9.4.5.	Flare and pilot flame records.	4.4.6.
9.4.6.	Hours of operation for engine 016G2	4.4.7.

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 - Emissions from Indirect Heat Exchangers.</i> WVDAQ 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 a fuel burning unit less than 10 MMBtu/hr in accordance with the exemptions defined within 45CSR§10-10.1. Additionally, the dehydration still vent is considered exempt from the manufacturing source requirements due to having a potential to emit of less than 500 lb SO ₂ /yr in accordance with 45CSR§10-4.1.e.
45CSR21	<i>To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds:</i> All storage tanks at the station, 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 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 dehydration reboiler heater burner has 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 K and Ka	<i>Standards of Performance for Storage Vessels for Petroleum Liquids:</i> All tanks at the facility are below 40,000 gallons in capacity as specified in 40CFR§§60.110(a) and 60.110a(a)
40 C.F.R. Part 60 Subpart Kb	<i>Standards of Performance for Volatile Organic Liquid Storage Vessels:</i> All tanks at the facility are below 75m ³ (19,813 gallons) in capacity as specified in 40CFR§60.110b(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 Compressor Station does not have any compression ignition internal combustion engines.
40 C.F.R. Part 60 Subpart JJJJ	<i>Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines.</i> All engines at the facility were constructed, reconstructed, or modified prior to the June 12, 2006 applicability date listed in 40CFR§60.4230(a)(4).
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 production sources is not applicable to this site because all vessels were constructed, modified, or commenced reconstruction, prior to August 23, 2011 as stated in 40CFR§60.5365(e). 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 Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015.</i> The requirements defined by this NSPS are not applicable to this site because all affected sources commenced construction prior to September 18, 2015 in accordance with the applicability criteria defined within 40CFR§60.5365a.
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 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 DDDDD	<i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters:</i> This rule does not apply to this station since it does not exceed major source HAP thresholds.
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 dehydration reboiler is not a steam generating unit, but a process heater, which is not regulated under this source category.
40 C.F.R. Part 64	<i>Compliance Assurance Monitoring (CAM).</i> This is the third permit renewal for this facility. The facility was found not to be subject to CAM at the time of the second 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 second 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: Wednesday, May 31, 2017
 Ending Date: Friday, June 30, 2017

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.