

Fact Sheet



For General Permit Registration Under 45CSR30 and Title V of the Clean Air Act

Permit Number: R30-NGGP-2007-05100025

Application Received: July 30, 2003

Plant Identification Number: 05100025

Permittee: **Columbia Gas Transmission**

Facility Name: Majorsville Compressor Station

Mailing Address: 1700 MacCorkle Avenue, SE

Charleston, WV 25314

Issued: October 17, 2007

Physical Location:	Dallas, Marshall County, West Virginia
UTM Coordinates:	540.9 km Easting • 4,423.6 km Northing • Zone 17
Directions:	Travelling PA State Route 21 west from Waynesburg turn onto SR3037 at Graysville and proceed to W. Finley. Turn left onto SR3043 and go approximately 4.6 miles to the facility (SR3043 becomes WV Route 15 at State border).

Facility Description

Majorsville Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. The station consists of one (1) TEG dehydrator with corresponding dehydrator reboiler (controlled by an enforceable Kaldair flare), four (4) 1,320 HP and one (1) 360 HP natural gas fired compressor engines, two (2) 130 HP natural gas fired generators, one (1) natural gas fired line heater, one (1) natural gas fired heating system boiler and numerous storage tanks of various sizes.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2005 Actual Emissions
Carbon Monoxide (CO)	69.2	2.3
Nitrogen Oxides (NO _x)	1,300.7	3.4
Particulate Matter (PM ₁₀)	29.7	0.1
Total Particulate Matter (TSP)	29.7	0.1
Sulfur Dioxide (SO ₂)	0.2	0.0
Volatile Organic Compounds (VOC)*	15.2	1.6
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2005 Actual Emissions
Formaldehyde	14.0	0.1
Other HAPs*	2.4	0.0
Total HAPs*	16.4	0.1
<i>Some of the above HAPs may be counted as PM or VOCs.</i>		
* Includes enforceable flare for control of emissions associated with dehydration unit.		

Title V Program Applicability Basis

This facility has the potential to emit 1,300.7 tons/yr of NO_x and 14.0 tons of Formaldehyde. Due to this facility's potential to emit over 100 tons per year of criteria pollutant and over 10 tons of individual HAP, Columbia Gas Transmission Corporation 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	
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R 60.18	NSPS Flare Requirement
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
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, 45CSR15, 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>)
R13-1523F	August 19, 2005	
R13-2173A	October 30, 2001	

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

This facility is a major source of HAPs

The boilers at the facility are < 10 mmBtu/hr and gas fired; hence Section 4.0 of the Title V General Permit is applicable to the boiler and heaters. According to 45CSR§10-10 these boilers are exempt from MRR and 45CSR§10-3.

Flare - Based on an incinerator capacity of 0.072 ton/hr, and a value of F = 5.43, the corresponding particulate limit according to 45CSR§6-4.1 is 0.392 lb/hr. According to R13-1523F, PM-10 emission limit

is 0.01 lb/hr. Compliance with PM-10 limit of 0.01 lb/hr shall show compliance with 45CSR§6-4.1 limit of 0.392 lb/hr limit.

Flare – Considering the maximum flow rate of gas through the flare, 2000 ppm limit for SO₂ (45CSR§10-4.1) translates into 0.6782 lb/hr SO₂ limit. According to R13-1523F, SO₂ emission limit is 0.12 lb/hr. Compliance with SO₂ limit of 0.12 lb/hr shall show compliance with 45CSR§10-4.1 limit of 2000 ppm.

40 C.F.R 63 Subpart HHH - This facility is a major source of HAPs. Due to a Benzene limit of less than 1 ton per year (0.065 tons/yr) from the flare according to R13-1523F the flare is subject to Section 12.0 (Natural gas Dehydration Unit not subject to MACT standards) of the General Permit. Please note that records of determination have to be maintained according to 12.1.7(a) of the General Permit.

The emission limits for the flare (FL1) were based on the following:

1. For CO, NO_x, and PM: the use of AP-42 emission factors (5th Edition) and the design heat input of the flare.
2. For SO₂: the use of a maximum emission factor of 0.057 lb SO₂/MMBtu (derived from FERC 20 grains Sulfur/100 scf) to calculate pph limit and an average emission factor of 0.0007 lb SO₂/MMBtu (derived from 0.25 grains Sulfur/100 scf).to calculate tpy limit.
3. For VOC: the sum of VOC generated from combustion of natural gas using AP-42 factors (5th Edition) and the design heat input of the flare, and the VOC generated from the combustion of the regenerator overhead vent stream derived from GRI-GLYCalc (assuming a minimum 95% destruction efficiency for the flare).
4. For HAP: the use of GRI-GLYCalc at 95% destruction efficiency for the flare.

Since the emission limits for the flare (FL1) were based on the above referenced methods, complying with the operating requirements for the flare to ensure proper operation of the flare, as well as the recordkeeping requirements for operating times of the flare, amount of natural gas used, and amount of waste gas processed will also serve as compliance demonstrations for the emission limitations.

Since the last Title V issuance permittee has submitted a request to terminate R13-2362-P1A, portable glycol reclaimer permit.

Non-Applicability Determinations

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

- a. 40 C.F.R. 60 Subparts K,Ka; *Standards of Performance for Storage Vessels for Petroleum Liquids* - All tanks at Majorsville station are below 40,000 gallons in capacity.
- b. 40 C.F.R. 60 Subpart Kb; *Standards of Performance for Volatile Organic Liquid Storage Vessels* - All tanks at Majorsville station are below 75 m³ in capacity.
- c. 40 C.F.R. 60 Subpart KKK; *Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant* - Majorsville 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.

- d. 45CSR21; *To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*: This facility is not located in one of the affected counties.
- e. 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.”
- f. 40 C.F.R. 60 Subparts Dc; *Standards of Performance for Steam Generating Units* – The boilers and gas heater at this facility are less than 10 MMBtu/hr; Hence Subpart Dc is not applicable.
- g. 40 C.F.R. 63 Subpart ZZZZ; *RICE MACT* - All the engines are 2-cycle or 4-cycle, lean burn or less than 500 HP; Hence Rice MACT is not applicable to this facility even though this facility is a major source of HAPs.
- h. 40 C.F.R. 63 Subpart DDDDD; *Boiler MACT* – All boilers and heaters at this facility use gaseous fuel and are less than 10 MMBtu/hr; Hence Boiler MACT is not applicable to this facility even though this facility is a major source of HAPs. Boiler MACT regulations were vacated in accordance with D.C. Circuit of Appeals (June 8th 2007) ruling.

Since the last Title V modification WVDEP has determined that 45CSR10 does not apply to gas fired engines.

40 CFR 64 - Engines do not have any add-on control; therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable to this facility. The boilers are not a major source; therefore, CAM is not applicable. For Dehydration unit, existing Title V permit specified a continuous compliance demonstration method, as defined in 40 C.F.R § 64.1, hence the Dehydration unit is exempted 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

Title V general Permit has already been advertised and finalized. This fact sheet for facility registration is written for the file. This fact sheet states which rules are applicable to the particular facility and which rules are not applicable.

Procedure for Requesting Public Hearing

N/A

Point of Contact

U.K.Bachhawat
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1256 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

N/A