

Fact Sheet



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

Permit Number: **R30-01700100-2011**
Application Received: **August 6, 2010**
Plant Identification Number: **017-00100**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Schutte Compressor Station**
Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

Physical Location: Sedalia, Doddridge County, West Virginia
UTM Coordinates: 534.46 km Easting • 4357.67 km Northing • Zone 17

Directions: From the intersection of Rt. 50 and Rt. 98, go West on Rt. 50 for 9.9 miles to Rt. 23 North, turn right onto Rt. 23 North, travel 19.5 miles on Rt. 23, just past the Columbia Gas Office turn left onto gravel road and cross small bridge. Continue to station on the right.

Facility Description

Natural Gas Transmission Facility, SIC Code – 4922. The station services a natural gas pipeline system. The purpose of the facility is production gathering station that services a transmission pipeline system to recompress natural gas flowing through a pipeline for transportation. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of two (2) 660 HP natural gas fired reciprocating engines and one (1) 600 HP natural gas fired reciprocating engine, two (2) 192.5 bhp emergency generators, one (1) dehydrator reboiler, one (1) dehydration unit, one (1) dehydration unit still flare, one (1) pipeline heater and seven (7) storage tanks of various sizes.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	42.96	12.61
Nitrogen Oxides (NO _x)	271.02	85.15
Particulate Matter (PM ₁₀)	1.96	Not provided
Total Particulate Matter (TSP)	1.96	0.61
Sulfur Dioxide (SO ₂)	0.05	0.02
Volatile Organic Compounds (VOC)	158.25	73.5
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2009 Actual Emissions
Formaldehyde	2.27	0.88
Acrolein	0.18	0.16
Acetaldehyde	0.19	0.16
Benzene	0.22	0.16
Ethylbenzene	0.13	0.20*
Hexane	0.39	0.23
Toluene	0.35	0.46*
Xylene	1.29	2.29*
Total HAPs	5.02	4.53

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

* These emissions are generated by the dehydration unit. In 2009, the old DEHY was replaced, but the old unit without controls ran the first few months before the new DEHY (with controls – flare) started up. The facility-wide PTE shown above was developed for the facility with new DEHY unit (with the controls (flare)). Therefore, the 2009 actual emissions of Ethylbenzene, Toluene and Xylene exceed the new PTE numbers, but are in compliance with the 2006 permit (2006 fact sheet doesn't specify PTEs for individual HAPs, and total PTE for HAPs is shown at 6.25 TPY).

Title V Program Applicability Basis

This facility has the potential to emit 271.02 TPY of NO_x and 158.25 TPY of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Transmission, Inc. 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 45CSR6 45CSR10 45CSR11 45CSR13 45CSR17 WV Code § 22-5-4 (a) (14) 45CSR30 40 C.F.R. Part 60, Subpart JJJJ 40 C.F.R. Part 61 40 C.F.R. Part 63, Subpart HH 40 C.F.R. Part 63, Subpart ZZZZ 40 C.F.R. Part 64 40 C.F.R. Part 82, Subpart F	Opacity Requirements for boilers Open burning prohibited. Sulfur requirements for fuel burned Standby plans for emergency episodes. New Source Construction Control fugitive particulate matter The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Asbestos inspection and removal National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines Compliance Assurance Monitoring (CAM) Ozone depleting substances
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>)
R13-2778	11/03/2008	
G60-C033	06/27/2011	

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

The following changes were done to the permit during this renewal permitting process:

1. Emission Units Table 1.1 was revised – two new emergency generators EG01 and EG02 were added per recently issued general permit G60-C033; also 1,000 gal engine oil tank TK07 was added, and 300 gal triethylene glycol tank TK02 was replaced with 560 gal tank.
2. Requirement 5.1.5 revised for accuracy – phrase “existing source” was removed because Part 63 Subpart HH would be applicable for a newly constructed source as well.
3. Requirement 5.1.8 revised – removed language related to applicability of Part 63 Subpart HHH because it is currently not applicable.
4. Requirements 5.1.11, 5.3.5 and 5.4.10 were added to include applicable provisions of the Part 63 Subpart HH “*National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*”. The subpart was not applicable before, because at that time it only covered major sources of HAPs, and this facility is not a major source of HAPs. In 2007, the subpart was revised to include provisions for area sources of HAPs as well. Per §63.760(b)(2), “for area sources, the affected source includes each triethylene glycol (TEG) dehydration unit...”, therefore the subpart became applicable to the Dehydration Unit (DEHY01).

Per §63.760(f)(5), the compliance date for the applicable provisions of this subpart was no later than January 5, 2009 since “the facility is not located in an Urban-1 county, as defined in §63.761” and “not located within any UA plus offset and UC boundary”, and construction commenced before July 8, 2005 (requirement 5.1.11).

The company claims “benzene exemption” per §63.764(e)(1)(ii): “the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year” (requirement 5.1.11). This is supported by the data from the report of wet natural gas sampling from 11/18/2009: benzene emissions from the facility were negligible. Therefore, the company is only required to do “*Determination of glycol dehydration unit flow rate or benzene emissions*” per §63.772(b)(2) (requirement 5.3.5), and maintain records as per §63.774(d)(1) (requirement 5.4.10). Requirement 5.1.12 was included to indicate that, if in the future, Dehydration Unit benzene emissions will equal or exceed 0.90 megagram per year (1 tpy), the company would be not exempted, and become a subject to 40 C.F.R. §63.764(d)(2).

Monitoring requirement 5.2.1 was revised to add compliance demonstration with the Subpart HH benzene exemption, claimed in requirement 5.1.11.

Compliance demonstration language was added to testing requirement 5.3.5 to state that compliance will be demonstrated with this Subpart HH requirement, if it is demonstrated with the existing and more detailed monitoring requirement 5.2.1 and testing requirement 5.3.4.

5. Requirement 5.2.1 was revised in order to include conditions 3.1.12 and 3.1.8 related to area source status, also include compliance demonstration with the emission limits in 5.1.7, and with 0.90 megagram per year benzene exemption in 5.1.11 (see item 8 below) – once per permit term frequency of wet gas composition sampling was added, and more details of the monitoring were specified.
6. Requirement 5.2.4 was added for opacity monitoring to ensure compliance with the opacity limit in 5.1.2.
7. Old Requirements 5.3.2, 5.3.3 and 5.3.4 were re-numbered as 5.3.1, 5.3.2 and 5.3.3 since there was no requirement under 5.3.1.

8. Requirement 5.3.4 was added in order to specify timing and other details of wet natural gas sampling as per 5.2.1. The wet gas sampling is necessary in order to satisfy the area source Subpart HH requirements to demonstrate compliance with the 1 ton/yr benzene exemption, as well as demonstrate compliance with the emission limits in 5.1.7.
9. Requirement 5.4.3 was revised – compliance demonstration for condition 5.1.10 was added since it is related to section 5.1.9 compliance demonstration.
10. Requirement 5.4.11 was added in order to document compliance with emission limitations in 5.1.7, and 1 ton per year benzene exemption per 5.1.11.
11. Requirement 5.5.1 was revised in order to add reporting for monitoring requirement 5.2.1 and testing requirement 5.3.4, and also a citation was added.
12. Requirement 5.5.2 was revised in order to fix a typo in R13-2778’ underlying requirement 6.5.1- reference to testing requirement “5.3.3” was changed to “5.3.2” because there were no testing that would require a protocol associated with requirement 5.3.3.
13. Requirements 6.1.3 and 8.1.2 were added to include a Part 63 Subpart ZZZZ provision applicable to engines EN03, EG01 and EG02. Per §63.6590(a)(2)(iii), these SI engines are considered new units (area source units constructed on or after June 12, 2006). Therefore, per §63.6590(c)(1), they are only subject to Part 60 Subpart JJJJ requirements. Engine EN03 Subpart JJJJ requirements are already included in Section 6 (based on Permit R13-2778). Engines EG01 and EG02 Subpart JJJJ requirements are included under Appendix B (Class II General Permit G60-C, Section 8).

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAP emissions
EN03	600 HP	Spark (SI)	Non-emergency, 2 SLB	2009 (new)	Area source
EG01	192.5 bhp	Spark (SI)	Emergency	2011 (new)	Area source
EG02	192.5 bhp	Spark (SI)	Emergency	2011 (new)	Area source

14. Section 7 was added to include provisions of Part 63 Subpart ZZZZ “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines” applicable to reciprocating internal combustion engines (RICE) EN01 and EN02 at the Schutte Station:

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAP emissions
EN01	660 HP	Spark (SI)	Non-emergency, non-black start, 2SLB	1985 (existing)	Area source
EN02	660 HP	Spark (SI)	Non-emergency, non-black start, 2SLB	1985 (existing)	Area source

Because of type and size of engines, only work and management practices are applicable from Table 2d (requirement 7.1.1), and Table 2b (numerical emission standards) is not applicable. Since EN01 are EN02 are existing stationary RICEs that are “not subject to any numerical emission standards”, notification requirements in §63.6645(a) are not applicable. An initial performance test is not required for engines EN01 and EN02 since they are not CI (Table 5 is not applicable), and no subsequent testing is required per §63.6615 (Table 3 is not applicable). Compliance should be demonstrated by monitoring (requirement 7.2.1) and recordkeeping (requirement 7.4.1).

15. Section 8.0 was added for emergency generators EG01 and EG02 based on general permit registration G60-C033 and general permit G60-C requirements. The generators are limited to 500 hours of operation per year. Emission limits in requirement 8.1.1 are based on this operation hours limit and, also, on worst case scenario of fuel consumption by the engines. Compliance with annual emission limits will be demonstrated by recordkeeping of hours of operation (requirement 8.4.1). Since hourly emission limits are based on worst case scenario of fuel consumption, compliance demonstration is not necessary.
16. Appendix A and Appendix B were added to include a copy of recently issued Class II General Permit G60-C033 Registration, and Class II General Permit G60-C (respectively).
17. 40 CFR 64 Compliance Assurance Monitoring (CAM) - the emission unit DEHY01 is a pollutant-specific emissions unit (PSEU) for VOC. PSEU meets all of the applicability criteria in 40 CFR §§64.2(a)(1)-(3): it is subject to an emission limit for VOC (5.1.7); uses a control device (Flare F1) to achieve compliance with the VOC emission limit; and has potential pre-control device emissions of VOC greater than 100 tpy. Furthermore, the PSEU does not meet any of the exemptions given under 40 CFR §64.2(b) for VOC.

Existing condition 5.1.9.c of the permit requires operation of the Flare F1 with a flame present at all times whenever emissions may be vented to the flame. In order to demonstrate compliance with this requirement, existing condition 5.2.2. requires monitoring of the presence or absence of a flare pilot flame using a thermocouple or other equivalent device. Therefore, continuous monitoring of the detector signal that indicates the presence of the pilot flame will provide reasonable assurance of ongoing compliance with the VOC limit. Existing condition 5.2.2, and newly added conditions 5.2.5 through 5.2.10, 5.4.12, 5.4.13, and 5.5.5 contain the CAM requirements.

Monitoring per the CAM Plan will be as follows:

		PSEU DEHY01
		Indicator No. 1
I.	Indicator	Flare (F1) operation
	Monitoring Approach	Continuous monitoring of the pilot flame using a computerized data acquisition, feedback, and control system to ensure the flare operates at all times the dehydration is in operation.
II	Indicator Range	Indicator provides data regarding presence or absence of flame.
	A. QIP threshold	The permittee has chosen not to propose a threshold at this time since it is not required for this permitting action by 40 C.F.R. §64.8(a). Although the threshold is not required, the language for a QIP as it relates to other applicable requirements is set forth as permit condition 5.2.9.
III	Performance Criteria	The detector will be installed, as specified by the manufacturer, to sight the most stable part of the flare flame at all firing rates. The installation will be performed by a trained, experienced representative of the manufacturer.
	A. Data Representativeness	
	B. Verification of Operational Status	
	C. QA/QC Practices and Criteria	For the device that detects the presence of a flame; calibration, maintenance, and operation will be conducted in accordance with manufacturer's specifications.

		PSEU DEHY01
		Indicator No. 1
	D. Monitoring frequency	Continuous
	E. Data Collection Procedure	Continuous, alarmed signal is sent to the control panel and recorded in <i>Mhealth</i> , Dominion's computerized data acquisition, monitoring, and statistical analysis system.
	F. Averaging Period	There is no averaging period since the flare pilot flame is either present or absent.

Non-Applicability Determinations

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

1. From current Fact Sheet:
 - 40 CFR 64 - Engines do not have any control; Therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable.
 - 40 C.F.R § 60.18 – Flare is used only to control the odor. Even without flare the facility is not a major source of HAPs. Therefore, 40 C.F.R § 60.18 is not applicable.
2. Part 60 Subpart JJJJ “*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*” is not applicable to engines EN01 and EN02 because they commenced construction before June 12, 2006.
3. Part 63 Subpart HHH “*National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*” is not applicable because this facility is not a major source of HAPs.
4. Part 63 Subpart DDDDD “*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*” is not applicable to RBR01 re-boiler and HTR01 heater because they are located at minor sources of HAPs.
5. Part 63 Subpart JJJJJ “*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*” is not applicable to the boiler and the heater because of the following reasons stated in the table below:

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Part 63 Subpart JJJJJ Applicability
HTR01*	HTR01	Pipeline heater #1; Bruest, R12N	1984	4,000 BTU/hr	Not applicable - doesn't meet “hot water heater” or “boiler” definition in § 63.11237
RBR01*	RBR01	Dehydration unit reboiler; NATCO, 600/100	2009	1.0 MMBtu/hr	Gas-fired boiler, exempt per § 63.11195(e)

* This equipment burns or combusts pipeline quality natural gas only.

6. There are no Greenhouse Gas Clean Air Act requirements for this facility because this is a renewal Title V permit and there have been no modifications that would have triggered a PSD permit.

7. Requirement 5.1.3 – this provision (45CSR§6-4.5) is more intended for incinerators burning solid materials, therefore it was found not applicable to Flare F1 and was left out of the permit.

8. 40 CFR Part 64 Compliance Assurance Monitoring (CAM) for DEHY01' HAPs - the emissions of HAPs from DEHY01 are not subject to CAM because they are subject to 40 CFR Part 63, Subpart HH. Being subject to Subpart HH meets the exemption criteria at 40 CFR §64.2(b)(1)(i) for the affected HAPs. Table 1 of Subpart HH lists the specific HAPs that are subject to Subpart HH, and all of the HAPs that have limits in condition 5.1.7 are listed there. Therefore, all of the HAPs with limits in 5.1.7, which are emitted from DEHY01, are not subject to 40 CFR Part 64.

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: August 16, 2011
Ending Date: September 15, 2011

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

Natalya V. Chertkovsky-Veselova
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

Natalya V. Chertkovsky-Veselova
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1220 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

The following corrections were made to the permit during the notice period per company's suggestions and as per our internal additional review:

- 1) Visual emission checks Requirement 3.2.1 was streamlined with requirement 5.2.4, and was deleted.

- 2) Requirement 5.2.4 was revised in order to be streamlined with requirement 3.2.1 as follows: “...If visible emissions are present at the flare (F1) ~~for three (3) consecutive monthly checks~~, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. ~~A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.~~ Records shall be maintained on site stating the date and time of each visible emission check and whether visible emissions were observed. Visible emission checks shall not be required during start-ups, shut-downs and malfunctions.”
- 3) Requirement 5.3.4 was revised to replace “4th” with “3rd” to make it consistent with identical requirements in other similar permits.
- 4) Requirement 5.5.1 was revised for clarity as follows:”The permittee shall submit by March 31st of the following year, an emission summary...”.
- 5) Requirements 5.2.5 through 5.2.10, 5.4.12, 5.4.13, and 5.5.5 were added to address CAM applicability to DEHY01 unit (see item 17 of the *Determinations and Justifications* section above, and also item 8 of the *Non-Applicability Determinations* section above for detailed explanation). CAM rule was mistakenly determined as “not applicable” during significant modification SM01 in 2009 (when an old DEHY unit was replaced with the new one with the federally enforceable flare F1).