

# Fact Sheet



## For Draft/Proposed 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 April 17, 2007.

Permit Number: **R30-04100012-2007**  
Application Received: **April 21, 2011**  
Plant Identification Number: **03-54-041-00012**  
Permittee: **Dominion Transmission, Inc.**  
Facility Name: **Sweeney Compressor Station**  
Mailing Address: **445 West Main Street; Clarksburg, WV 26301**

Permit Action Number: *SM01*      Revised: *Draft/Proposed*

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Physical Location:	Camden, Lewis County, West Virginia
UTM Coordinates:	530.50 km Easting • 4,328.80 km Northing • Zone 17
Directions:	Interstate I-79 North to the Weston/Buckhannon exit (exit 99). Take Route 33 to Weston. Go straight through two stoplights and at the third light (at Main Street) turn left. Go one block to 2 <sup>nd</sup> Street, next light, and turn right, following Route 33 West. Travel approximately 6 miles to Camden. Turn right on County Route 9 and go 6.3 miles to County Route 6 and go 1.7 miles. Station is on left side of road across a small bridge.

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### Facility Description

The Sweeney Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) 4922.

This modification is to facilitate replacement of the glycol dehydration still, reboiler, and flare.

**Emissions Summary**

The following PTE changes are associated with this modification:

<b>Pollutant</b>	<b>Change in PTE (TPY)</b>
VOC	+ 0.92
Benzene	- 0.33
Toluene	- 0.21
Ethylbenzene	+ 1.76
Xylene	+ 0.50
Hexane	- 0.01

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of NO<sub>x</sub>, CO and 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.

The modification to 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	Emission of sulfur oxides
	45CSR13	
	45CSR30	Operating permit requirement.
	40CFR60, Subpart A	General requirements

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**

<b>Permit or Consent Order Number</b>	<b>Date of Issuance</b>	<b>Permit Determinations or Amendments That Affect the Permit (if any)</b>
R13-2498B	Proposed	

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 administrative changes were made:

- Dehydration Unit Still (DEHY01), Dehydration Unit Reboiler (RBR01), and Flare (1C) were removed from this permit.
- Dehydration Unit Still (DEHY02), Dehydration Unit Reboiler (RBR02), and Flare (FL02) were added to this permit replacing the units that were removed.
- References to the old equipment being removed were updated to reference the new equipment.
- R13-2498A was written in the old NSR permit format. When it was revised into R13-2498B, the new NSR permit format was used. All references in this Title V permit were updated accordingly.

The following new conditions in R13-2498B were already present in this Title V permit:

- Condition 4.4.1 requires records of monitoring information. This condition already exists in this Title V permit as Condition 3.4.1. The Title V permit citation was updated to reference R13-2498B.
- Condition 4.1.4 limits the reboiler opacity to 10 percent. This condition already exists in this Title V permit as Condition 4.1.1. The Title V permit citation was updated to reference R13-2498B.
- Condition 4.5.2 requires reporting of any deviations of the allowable visible emissions requirement for any source during observations using 40CFR Part 60, Appendix A. This condition already exists in this Title V permit as Condition 5.5.1. The Title V permit condition was updated to include a reference to Method 22, and the citation was updated to reference R13-2498B.

In addition to formatting and wording changes, the following Title V permit conditions were changed to incorporate changes made in R13-2498B:

- The citation to R13-2498A was updated in Condition 3.4.2. This condition now references condition 3.4.1 of R13-2498B.
- The maximum wet natural gas processing rates in Condition 5.1.8 were changed from 325 MMscf/day or 118,625 MMscf/year for DEHY01 to 320 MM scf/day or 116,800 MM scf/year for DEHY02.
- The flare control efficiency in Condition 5.1.9 was increased from 95% to 99%.
- Language was added to Condition 5.1.12 specifying the minimum net heating value of the glycol Dehydration Unit Still (DEHY02) waste gas plus assist gas be 200 Btu/scf.
- Condition 5.1.13 now specifies a maximum flare exit velocity of 60 fps. Previously, this condition required "an exit velocity that satisfies the requirements of 40 C.F.R. Part 60.18(f)".
- Condition 5.2.2 now requires records of the minimum heating value of the flare waste gas instead of the gas flare flow rate.
- The allowable sulfur content of the gas in Condition 5.2.5 has been lowered from 0.422 grains/100 ft<sup>3</sup> to 0.244 grains/100 ft<sup>3</sup>.
- Condition 5.2.6 provides a limit for the inlet natural gas H<sub>2</sub>S concentration. The previous language stated that "proof of compliance with the FERC limit of 0.25 grains/100ft<sup>3</sup> and Section 5.1.6 will be considered demonstrated if the gas chromatograph shows a total H<sub>2</sub>S content of 0.0229 grains/100 ft<sup>3</sup> or less". The FERC limits and Condition 5.1.6 is still mentioned in the new language, however no maximum gas chromatograph reading is specified.
- References to 45CSR§30-5.1.c were removed from conditions 5.2.1, 5.2.3, 5.2.5, 5.2.6, and 5.5.1.

The following permit conditions were replaced with new permit language:

- Condition 5.1.7 previously required the flare to have a minimum of a 95% reduction. This limit was increased to 99% for the new flare, and this limit is included in condition 5.1.9. Thus condition 5.1.7 was removed from this permit.
- To demonstrate compliance with conditions 5.1.9 through 5.1.14, Condition 5.2.1 previously required monitoring of the operating times for the flare, monitoring equipment, glycol regenerators, and the wet gas throughput to the dehydrator. The condition also required monthly records of the wet gas throughput to the dehydration unit, operating times for the flare, monitoring equipment, and associated emissions units, and all periods during which there was no pilot flame. Additionally, the permittee was required to record when the pilot flame was absent from the flare or if it was operational for the entire month.

The new language in this permit condition requires records of the pilot flame absence and if the flare was operational the entire month. A flare design evaluation is now required in condition 5.2.7 to demonstrate compliance with conditions 5.1.10 through 5.1.14, and records of this evaluation are required in condition 5.4.3. Wet gas throughput records are now required in condition 5.4.7.

- Condition 5.2.3 previously required monthly visual emission checks in accordance with 40 CFR 60, Appendix A, Method 22, monthly flare design records/calculations, and Documentation of malfunctions of the flare. The rewritten condition addresses only visual emission checks. Flare design records/calculations are now addressed in condition 5.2.2. Documentation of malfunctions is now addressed in condition 3.4.5.

Compliance with the 99% control efficiency given in Condition 5.1.9 is demonstrated by the following:

- Condition 5.2.7 provides the Director the option to require a flare design assessment to verify the 99% efficiency is reached.
- Condition 5.1.11 requires that the pilot flame be lit at all times, and condition 5.2.1 requires monitoring of the flare pilot light.
- Condition 5.1.12 requires a net heating value of 200 BTU/scf.
- Condition 5.1.13 limits the exit velocity to less than 60 ft/s.
- Condition 5.1.14 requires sufficient natural gas to meet the 99% efficiency requirement.
- Condition 5.4.2 requires records of the absence of the flare pilot flame.
- Condition 5.4.7 requires records kept of natural gas usage.

Additionally, the calculation for PM Emissions was removed from condition 5.1.1 as requested by Dominion. Dominion stated that this calculated was specific to the old flare.

The following new permit conditions in R13-2498B were incorporated into this Title V permit:

Title V Permit Condition	R13-2498B Condition	Description of Permit Language
3.1.10	4.1.2	Minor Source of HAP: Emissions Below Major Source Threshold
3.1.11	4.1.21	Operation & Maintenance of Air Pollution Control Equipment
3.1.12	4.1.22	Permit Suspended or Revoked
3.1.13	4.1.1	Permanent Removal of Old Dehydration Unit Equipment
3.3.2	4.3.3	Facility HAP Potential: Demonstrate Compliance with 3.1.10
3.4.4	4.4.2	Record of Maintenance of Air Pollution Control Equipment
3.4.5	4.4.3	Record of Malfunctions of Air Pollution Control Equipment
3.4.6	4.4.10	Facility HAP Potential: Keep a Record of All PTE HAP Calculations
3.5.10	4.5.1	Facility HAP Potential: Submit Test Protocol if Required by Director
4.1.2	4.1.5	Reboiler Maximum Design Heat Input (MDHI)
4.2.1	4.2.1	Reboiler Opacity
5.1.15 <sup>1</sup>	4.1.16	Flare PM Exceptions
5.2.7	4.3.2	Flare Design and Operation
5.4.2	4.4.5	Flare Pilot Flame
5.4.3 <sup>2</sup>	4.4.6	Flare Design and Operation
5.4.4	4.4.7	Facility HAP Potential
5.4.5	4.4.8	Monitoring and Testing Requirement Records
5.4.6	4.4.9	Flare No Visible Emissions
5.4.7	4.4.11	Maximum Wet Natural Gas Throughput Limitation
5.5.2	4.5.3	Report Deviations from Flare Design & Operation Criteria

<sup>1</sup>Stoking provisions from R13-2498B were not added to this permit. Since the flare combusts gas, stoking is not performed.

<sup>2</sup>Information formerly required in condition 5.2.2 is now required by this condition; thus 5.2.2 was deleted.

### Non-Applicability Determinations

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

**45CSR14—Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration:** The replacement of the dehydrator still, reboiler and flare does not meet the definition of a major modification (45CSR§§14-2.40 and 2.75), thus is not subject to a Prevention of Significant Deterioration (PSD) review.

**40 CFR 63, Subpart HH—National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities:** This subpart applies to owners/operators of natural gas production facilities (40 C.F.R. §63.760). The Sweeney Station is a transmission and storage facility, not a production facility; thus, this rule is not applicable to this facility.

**40 CFR63, Subpart HHH—National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities:** This subpart applies to owners/operators of natural gas transmission and storage facilities that are major HAP sources (40 C.F.R. §63.1270.a). The Sweeney Station is not a major HAP source; thus, this rule is not applicable to this facility.

**40 C.F.R. Part 64: Compliance Assurance Monitoring.** The changes made at this facility do not meet the applicability criteria in 40 CFR. § 64.2. Therefore, this facility is not subject to CAM.

**Greenhouse Gas Permitting.** There have been no modifications to this facility that have triggered PSD permitting, thus there are no applicable greenhouse gas Clean Air Act requirements applicable to this facility.

### **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 17, 2011  
Ending Date: September 16, 2011

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

Rex Compston, P.E.  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> 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**

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

Not applicable.