

# Fact Sheet



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

Permit Number: **R30-00100100-2020**  
Application Received: **November 15, 2019**  
Plant Identification Number: **03-54-00100100**  
Permittee: **Dominion Energy Transmission, Inc.**  
Facility Name: **Pepper Compressor Station**  
Mailing Address: **925 White Oaks Blvd.; Bridgeport, WV 26330**

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Physical Location: Pepper, Barbour County, West Virginia  
UTM Coordinates: 574.20 km Easting • 4,337.79 km Northing • Zone 17  
Directions: Interstate 79 North to the Nutter Fort exit. Turn right off the exit ramp onto Rt 20. Continue approximately 6 miles until turning left onto Rt 57. Stay on Rt 57 for approximately 10 miles then turn left onto Stewarts Run (CR-18). Stay on Stewarts Run until turning left onto Brushy Fork Road (CR-7). Stay on Brushy Fork for 1 mile, station will be on right.

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### Facility Description

The Pepper Compressor Station is a natural gas compressor station. Engines EN01 and EN02 compress wet production natural gas flowing through a pipeline for transportation. Engine EN03 and the glycol dehydration unit compress and dehydrate wet transmission natural gas flowing through a pipeline for transportation.

## Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2018 Actual Emissions
Carbon Monoxide (CO)	48.11	33.98
Nitrogen Oxides (NO <sub>x</sub> )	192.01	162.25
Particulate Matter (PM <sub>2.5</sub> )	1.95	0.1
Particulate Matter (PM <sub>10</sub> )	1.95	0.26
Total Particulate Matter (TSP)	3.00	0.53
Sulfur Dioxide (SO <sub>2</sub> )	0.06	0.02
Volatile Organic Compounds (VOC)	84.35	40.44
<i>PM<sub>10</sub> is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2018 Actual Emissions
Formaldehyde	5.11	0.94
Acrolein	0.63	0.19
Acetaldehyde	0.82	0.19
Benzene	0.11	0.06
Ethylbenzene	0.01	<0.01
n-Hexane	0.25	0.04
Toluene	0.48	0.04
Xylene	0.87	0.04

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

### Title V Program Applicability Basis

This facility has the potential to emit 192.01 TPY of NO<sub>x</sub>. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Dominion Energy 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	To Prevent And Control Particulate Air Pollution from Combustion Of Fuel In Indirect Heat Exchangers.
	45CSR6	Open burning prohibited.

	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction.
	45CSR16	Standby plans for New Stationary Sources.
	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	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. Part 60, Subpart JJJJ	NSPS for Stationary Spark Ignition ICE
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	40 C.F.R. Part 63, Subpart ZZZZ	Reciprocating Internal Combustion Engines MACT
State Only:	45CSR4	No objectionable odors.
	45CSR17	To Prevent And Control Particulate Matter Air Pollution from Materials 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 ( <i>if any</i> )
R13-2866B	January 26, 2016	

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**

This is a fourth renewal of this Title V permit. The last permitting action on this Title V permit was an administrative amendment (R30-00100100-2015(AA01)) to correct the design capacity of the glycol dehydrator reboiler (RBV1) from 1 MMBtu/hr to the name plate capacity of 1.155 MMBtu/hr. There have been no other changes to the equipment at the facility and there have been no changes to the State Rules and Federal Regulations that the facility are subject to since the last Title V renewal in 2015. The only changes made during this Title V renewal are permit formatting changes.

The following formatting changes were made in Section 4.0 Source Specific Requirements:

- Permit conditions were rearranged such that R13 Permit conditions are in order and that conditions pertaining to specific equipment are grouped together.
- Old condition 4.1.12. was split into three conditions 4.1.19, 4.1.20, 4.1.21.
- Old condition 4.1.13 was split into two conditions 4.1.22 and 4.1.23.
- Old condition 4.1.14 was split into two conditions 4.1.24 and 4.1.25.
- Old condition 4.4.3 was split into four conditions 4.4.8, 4.4.9, 4.4.10, and 4.4.11.

Engines EN01 and EN02 are existing non-emergency 2SLB stationary RICE greater than 500 hp and located at an area source of HAP subject to 40 C.F.R. 63 Subpart ZZZZ.

Engine EN03 and the emergency generator EN05 are subject to 40 C.F.R 60 Subpart JJJJ and 40 C.F.R. 63 Subpart ZZZZ. EN03 and EN05 meet the requirements of 40 C.F.R 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart JJJJ. EN03 is not a certified engine and testing is required. EN05 is a certified engine.

The glycol dehydrator reboiler (RBV1) is subject to the opacity requirements of 45CSR2.

The flare (F1) is subject to opacity and PM limits of 45CSR6.

Tanks TK01 – TK09 have no source specific applicable requirements.

### **Non-Applicability Determinations**

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

- a. 45CSR10 – *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides*. The director has determined that 45CSR10 does not apply to engines; the engines do not meet the definition of a fuel burning unit in 45CSR§10-2.8 or a manufacturing process in 45CSR§2-2.11. Additionally, the Glycol Dehydrator Reboiler (RBV1) is subject to 45CSR10 as a fuel burning unit, but it is exempted from sections 3 and 6-8 since it has a design heat input below 10 million BTU/hr.
- b. 40 CFR 60, Subpart K – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978*. The drip gas and new engine oil tanks (Emission Points TK01 and TK02) were constructed in 1977. However, this subpart does not apply per 40 C.F.R. §60.110(a) because these tanks have a capacity below 40,000 gallons.
- c. 40 CFR 60, Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*. Although TK03-TK09 were installed after 1984, none are equal to or greater than 75 cubic meters (19,813 gallons). Therefore, this subpart does not apply.
- d. 40 CFR 60, Subpart OOOO – *Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which construction, modification or reconstruction commenced after August 23, 2011, and on or before September 18, 2015*. This facility has no equipment with applicable requirements under Subpart OOOO. This subpart applies to equipment installed after August 23, 2011 and on or before September 18, 2015. The compressor associated with Engine EN03 has no requirements under Subpart OOOO because the unit services transmission natural gas. TK06-TK09 have no requirements because none have the potential for VOC emissions of 6 tons per year or more.

- e. 40 CFR 60, Subpart OOOOa – *Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After September 18, 2015*. This subpart applies to equipment installed after September 18, 2015. The facility has no affected emissions units that have been installed after the applicable Subpart OOOOa effective date.
- f. 40 CFR 63, Subpart HHH – *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*. This facility is exempt per 40 C.F.R. §63.1270(a) since this facility is not a major HAP source.
- g. 40 CFR 64 – *Compliance Assurance Monitoring*. The facility has two emission units with control devices that are not subject to 40 CFR 64 for the following reasons:
  - 1. Emission unit EN03 (Control device CC1 - 80% control efficiency CO) – This emission units potential pre-controlled carbon monoxide emissions is the same as the carbon monoxide emission limit in condition 4.1.1. The potential pre-control device emissions of carbon monoxide do not exceed 100% of the major source threshold. Therefore, Emission unit EN03 does not meet the applicability under 40 C.F.R §64.2(a).
  - 2. Emission Unit RSV1 (Control device F1) - the potential pre-control device emissions of applicable pollutants (5.63 tpy VOC, 0.15 tpy Hexane, 0.42 tpy Toluene, and 0.85 tpy Xylene) do not exceed 100% of the major source threshold. Therefore, Emission unit RSV1 does not meet the applicability under 40 C.F.R §64.2(a).

### **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: March 18, 2020  
Ending Date: April 17, 2020

### **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.