

Fact Sheet



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

Permit Number: **R30-01300001-2011**
Application Received: **February 2, 2011**
Plant Identification Number: **03-54-013-00001**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Yellow Creek Station**
Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

Physical Location: Big Springs, Calhoun County, West Virginia
UTM Coordinates: 495.80 km Easting • 4314.80 km Northing • Zone 17
Directions: Take Interstate 79 North to the Big Otter Exit. Take Route 16 North through Grantsville. After leaving Grantsville, travel on Route 16 North for approximately 6.1 miles to Calhoun County Route 6 (Klipstine Road). Turn right onto Route 6 and travel 1 mile; station is to the right of road.

Facility Description

Yellow Creek Compressor Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) Code 4922 and North American Industry Classification System (NAICS) Code 48612. The station consists of three (3) 1100 HP natural gas fired reciprocating engines, one (1) dehydrator reboiler, one (1) dehydration unit with flare, one (1) 16 HP air Compressor and nine (9) storage tanks of various sizes. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day.

The Yellow Creek Station is a production facility that compresses production gas to Hastings Extraction Plant.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	268.15	217.27
Nitrogen Oxides (NO _x)	443.66	412.38
Particulate Matter (PM _{2.5})	0.02	0.017
Particulate Matter (PM ₁₀)	1.17	0.97
Total Particulate Matter (TSP)	1.17	0.97
Sulfur Dioxide (SO ₂)	0.11	0.06
Volatile Organic Compounds (VOC) ¹	116.50	109.23
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2009 Actual Emissions
Total HAPs ²	8.9	7.68
Some of the above HAPs may be counted as PM or VOCs.		

¹ The increase in VOC between the first renewal and the second renewal is 40.75 TPY. The VOC PTE increased because of the updated wet gas sample and dehy emissions model; however a portion is also from updated fugitive emissions calculations.

² The highest HAP PTE is Formaldehyde at 5.31 TPY.

Title V Program Applicability Basis

This facility has the potential to emit 268.15 tons per year of Carbon Monoxide (CO), 443.66 tons per year of NO_x and 116.50 tons per year of VOC. 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	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR10	To Prevent and Control Air Pollution from the Emissions of Sulfur Dioxides
	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	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. Part 61	Asbestos inspection and removal
	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	Control fugitive particulate matter
	45CSR42	Greenhouse Gas Emissions Inventory Program

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft 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>)
R13-2614A	June 27, 2006	

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

Since R30-01300001-2006 was issued, there have been no changes to the Dominion Transmission, Inc. Yellow Creek Station Title V Permit.

The following updates were made to the renewal permit:

1. The Emission Unit Table 1.0 was revised in accordance with Attachment D of Dominion Transmission, Inc. Yellow Creek Station Title V Renewal Application. The only change between the 2006 renewal and the 2011 renewal is that a 400 gallon horizontal tank that was above ground containing Tri-Ethylene Glycol (TK10) was removed. This change did not influence any applicability to any rule and/or regulation.

2. Added Section 1.2, Active R13, R14, and R19 Permits and Table.
3. The regulatory language for Sections 3.1.1 and 3.1.2, 45CSR§§6-3.1 and 3.2, was updated.
4. 45CSR34 incorporates and is now cited with 40 C.F.R. Part 61 because 45CSR15 was repealed. The citation for 3.1.3 has been revised accordingly.
5. Title V boiler plate was revised to incorporate the greenhouse gas language, 45CSR42, in Sections 3.1.9 and 3.5.10.
6. Section 3.1.14 was added and states that the Secretary has the authority to suspend or revoke an approved R13 permit if the construction and operation are not in accordance with the plans and specifications.
7. The boilerplate language for Section 3.3.1 was revised with the addition of Section 3.3.1.d and the citation was also revised to expand the authority of the West Virginia state code.
8. Replaced “N/A” in Section 3.7.2 of the second renewal Title V permit with the “Non-Applicability Determinations” table that is in the Fact Sheet.
9. Section 5.1.12 was added to address Yellow Creek’s potential applicability to 40 C.F.R. Part 63 Subpart HH. Based on the PTE data submitted by Dominion, this facility is exempt from 40 C.F.R. Part 63 Subpart HH, as stated in 40 C.F.R. § 63.764 (e) (1) (ii), since it emits less than 1 tpy of benzene.

However, if Yellow Creek ever exceeds 1 tpy of benzene, they would be subject to 40 C.F.R. § 63.764 (d) (2). The facility would be required to calculate the optimum glycol circulation rate and operate the dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate. Additionally, a record of determination must be maintained.

The estimated benzene PTE for Yellow Creek Station is 0.49 TPY per the 2011 renewal application. The 2009 actual benzene emissions from the “2010 Certified Emissions Statement” are 0.45 TPY.

10. 40 C.F.R. Part 63 Subpart ZZZZ area source requirements were incorporated as Section 6.0.
11. Dominion Transmission, Inc. has not modified the Yellow Creek Station that would trigger a PSD permit and require GHG permitting.

40 C.F.R. Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Dominion Transmission, Inc. Yellow Creek Station has three (3) 1100 HP reciprocating engines, each with integral compressors, and a 16 HP air compressor that are subject as an area source of 40 C.F.R. Part 63 Subpart ZZZZ. The facility is a minor source of HAPs. These engines were constructed prior to June 12, 2006. The facility shall comply with all applicable requirements of 40 C.F.R. Part 63 Subpart ZZZZ by October 19, 2013 per 40 C.F.R. § 63.6595 (see Section 3.1.13.).

Although non-major area source MACT 40 C.F.R. Part 63 Subpart ZZZZ is excluded from state delegation in 45CSR34, its requirements are considered enforceable under 45CSR30 because of the definition in 45CSR§30-2.6.d, which includes any requirement subject to §112 of the CAA. This, coupled with 45CSR§30-5.2., allows enforcement (by DAQ) of these non-delegated requirements.

One of the three (3) 1100 HP engines (EN01) is an existing spark-ignition (SI) two-stroke lean burn (2SLB) Cooper GMV-10TF Reciprocating Engine/Integral Compressor that combusts pipeline quality natural gas. The other two 1100 HP engines (EN02 and EN03) are existing spark-ignition (SI) four-stroke rich burn (4SRB) Ingersoll Rand 103KVG-HL Reciprocating Engines/Integral Compressors that combust pipeline quality natural gas. The compressor (CPR01) is an existing SI four-stroke rich burn (4SRB) Kohler K341S

Air Compressor that combusts pipeline quality natural gas and is rated at 16 hp. As stated below, the engines and compressor meet the definition for stationary reciprocating internal combustion engines (RICE) according to 40 C.F.R. § 63.6585 (a):

A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differs from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

The Yellow Creek Station engines are in the category of greater than 500 HP as established by the RICE regulation.

Engine (EN01) is subject to the maintenance requirements for a 2SLB (every 4,320 hours change oil/filter, inspect spark plugs, and inspect hoses/belts), Table 2d, Item 6. Engines (EN02 and EN03) are subject to the maintenance requirements for a 4SRB (limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O₂; or reduce formaldehyde emissions by 76 percent or more, Table 2d, Item 10. The air compressor (CPR01) fits into the 4SRB less than 500 HP category (change oil and filter every 1,440 hours of operation or annually, whichever comes first; inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary), Table 2d, Item 9.

Following, are the applicable RICE MACT requirements according to the RICE Summary Table of requirements provided by the EPA (<http://www.epa.gov/ttn/atw/rice/ricepg.html>). EN01, EN02, EN03, and CPR01 have compliance date of October 19, 2013.

Emission Unit ID	Emission Limitations	Operating Limitations	Performance Testing	Monitoring Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Record-keeping Requirements	Reporting Requirements
EN01 2SLB	§ 63.6603 Table 2d	None	None	§ 63.6625 (e), (h), (j)	None	§ 63.6605 § 63.6640	None	§ 63.6655 (a), (b), (d), (e)	None
EN02 EN03 4SRB	§ 63.6603 Table 2d	§ 63.6603 Table 2d	§ 63.6615 § 63.6620 Table 3 Table 4 Table 5	§ 63.6625 (a), (b), (h),(k)	§ 63.6630 Table 5	§ 63.6605 § 63.6635 § 63.6640	§ 63.6645 (The Notice shall be issued on or before February 16, 2011.)	§ 63.6655 (a), (b), (d)	§ 63.6650 (a) – (f)
CPR01 4SRB	§ 63.6603 Table 2d	None	None	§ 63.6625 (e), (h), (j)	None	§ 63.6605 § 63.6640	None	§ 63.6655 (a), (b), (d), (e)	None

Non-Applicability Determinations

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

40 C.F.R. Part 60 Subpart III	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The three (3) 1100 HP reciprocating engines with integral compressors were manufactured before July 11, 2005 and they are not fired by diesel. Thus, these engines are not subject to 40 C.F.R. Part 60 Subpart III.
40 C.F.R. Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The three (3) 1100 HP reciprocating engines with integral compressors were manufactured before July 12, 2006 and these units combust natural gas. Thus, these engines are not subject to 40 C.F.R. Part 60 Subpart JJJJ.
40 C.F.R. Part 63 Subpart HHH	National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. The Yellow Creek Station is not subject to Subpart HHH since the station compress production gas Hastings Extraction Plant. The Yellow Creek Station is a minor (area) source of HAPs.
40 C.F.R. Part 64	This is the second permit renewal for this facility. The facility was found not to be subject to CAM at the time of the first renewal. Therefore, a CAM determination is not required.

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: April 21, 2011
Ending Date: May 23, 2011

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

Wayne Green
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

Wayne Green
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Division of Air Quality
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Charleston, WV 25304
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Response to Comments (Statement of Basis)

None