

Fact Sheet



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

Permit Number: **R30-10900018-2011**
Application Received: **September 7, 2010**
Plant Identification Number: **03-54-10900018**
Permittee: **Dominion Transmission, Inc**
Facility Name: **Oscar Nelson Station**
Permittee Mailing Address: **445 West Main Street Clarksburg, WV 26301**

Physical Location: Marianna, Wyoming County, West Virginia
UTM Coordinates: 445.76 km Easting • 4161.72 km Northing • Zone 17
Directions: Approximately 8.0 miles west of Pineville, WV on Route 97

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. It has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of six (6) 880 HP natural gas fired reciprocating engines, one (1) dehydrator reboiler, one (1) dehydration unit with flare, one (1) auxiliary generator, and six (6) storage tanks of various sizes.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	197.6	130.88
Nitrogen Oxides (NO _x)	1,566.1	1,291.31
Particulate Matter (PM ₁₀)	2.08	Not reported
Total Particulate Matter (TSP)	2.08	1.79

Sulfur Dioxide (SO ₂)	0.13	0.11
Volatile Organic Compounds (VOC)	127.3	107.37

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2009 Actual Emissions
Formaldehyde	7.47	6.16
Benzene	0.48	0.37
Toluene	0.42	0.33
Ethylbenzene	0.31	0.15
Hexane	0.11	0.10
Xylene	0.29	0.23
Acrolein	0.09	0.08
Acetaldehyde	0.14	0.12
Total HAPs	9.31	7.54

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

Title V Program Applicability Basis

This facility has the potential to emit 197.6 TPY of CO, 1,566.1 TPY of NO_x and 127.3 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	Opacity Requirements for boilers
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur requirements for fuel burned
	45CSR11	Standby plans for emergency episodes.
	45CSR13	New Source Construction
	45CSR17	Control fugitive particulate matter
	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. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart HH	National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities

	40 C.F.R. Part 63, Subpart ZZZZ	National Emission 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.

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>)
R13-2626C	July 19, 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

The following are changes/additions to the most recent Title V permit for this facility:

1. Table 1.1 – boiler BLR01 was removed from the facility, therefore it was removed from the Emission Units Table.
2. Requirements 3.2.2 and 3.2.3 - reference to DEHY1 was added to specify that these requirements are applicable only to the DEHY1.
3. Section 4 – Dehydration System DEHY1 requirements were removed from Section 4 (Reboiler REB1 requirements), and included with Section 5 (Flare F1 requirements). The reason was that there were no applicable requirements for the DEHY1 in the Section 4 - all of them apply only to REB1. Since the flare F1 is a control device for the DEHY1, their requirements were combined under the same section.
4. Requirement 5.1.2 was revised in order to establish a control efficiency for the flare F1 by addition of the minimum operating requirements. These requirements are necessary in order to maintain the source's synthetic minor status for HAPs, and were overlooked during R13 permitting process.
5. Requirement 5.1.3 was included with the new requirement 5.1.2.
6. Requirement 5.2.1 – phrase “In order to demonstrate compliance with the requirements of 5.1.2.c” was added for clarification purposes.

7. Requirements 5.1.9, 5.3.2 and 5.4.5 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 (DEHY1).

Per §63.760(f)(6), the compliance date for the applicable provisions of this subpart was January 3, 2007, 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 after July 8, 2005 (requirement 5.1.9).

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 5.1.9). Therefore, the company is only required to do “*Determination of glycol dehydration unit flow rate or benzene emissions*” per §63.772(b)(2) (requirement 5.3.2), and maintain records as per §63.774(d)(1) (requirement 5.4.5). Requirement 5.1.10 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 5.2.4 (based on permit R13-2626C requirement 6.2.4) was revised to add compliance demonstration with the Subpart HH benzene exemption, claimed in requirement 5.1.9, and to specify more details of the monitoring.

Compliance demonstration language was added to testing requirement 5.3.2 to state that compliance will be demonstrated with this Subpart HH requirement, if it is demonstrated with the existing and more detailed monitoring requirement 5.2.4 and testing requirement 5.3.1.

8. Old requirement 5.3.1 (underlying R13-2626 permit requirement 6.3.1) was left out because it is obsolete. The initial HAPs testing was conducted on March 6, 2006, and per the test results HAPs were below 85% of the permitted rate (10 TPY of individual HAPs and 25 TPY of total HAPs) set forth in requirement 3.1.12. Therefore, per the old 5.3.1 “after the initial compliance test, no further testing required except as ordered by the Director”.
9. New requirement 5.3.1 was added to specify time frame and methods of testing required in 5.2.4.
10. Requirement 5.3.3 was added for opacity testing to demonstrate compliance with 5.1.2.b.
11. Requirement 5.4.1 – phrase “and 5.2.3” was added for clarity.
12. Requirement 5.4.2 was revised to replace “5.1.3” with “5.1.2.c and 5.2.1” since requirement 5.1.3 was included with new requirement 5.1.2.
13. Requirement 5.4.3 was revised to add more specific details of flare design evaluation recordkeeping required by 5.1.2.
14. Requirement 5.4.4 was revised to replace deleted obsolete condition “5.3.1” with condition “3.1.12” outlining minor source of HAPs status.
15. Requirement 5.4.6 was added for recordkeeping of opacity tests in 5.3.3.
16. Requirement 5.5.1 was revised to add “Method 22” for requirement 5.2.2 monitoring.

17. Old requirements 5.5.2 and 5.5.3 (underlying R13-2626 requirements 6.5.2 and 6.5.3) were left out because they are related to deleted obsolete requirement 5.3.1.
18. New requirement 5.5.2 was added for reporting related to testing in 5.3.1.
19. New requirement 5.5.3 was added to establish reporting for 5.1.2.
20. Section 6 was added to include the area source 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 through EN06 and AUX01:

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAP emissions
EN01 through EN06	880 HP	Spark (SI)	Non-emergency, non-black start, 2SLB	1947 (existing)	Area source
AUX01	350 HP	Spark (SI)	Emergency, non-black start, 4SLB	1988 (existing)	Area source

Because of type and size of engines, only work and management practices are applicable from Table 2d (requirement 6.1.1), and Table 2b (numerical emission standards) is not applicable. Since AUX01 is “an existing stationary emergency RICE”, and EN01 through EN06 and AUX01 are existing stationary RICES that are “not subject to any numerical emission standards”, notification requirements in §63.6645(a) are not applicable. Initial performance test is not required for engines EN01 through EN06 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 6.2.1), recordkeeping (requirement 6.4.1) and reporting (requirement 6.5.1).

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; Glycol Dehydration unit is not a major source of HAPs. Therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable to this facility.
2. Part 60 Subpart JJJJ “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines” is not applicable to engines EN01 through EN06 and AUX01 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 REB1 re-boiler because it is located at minor source 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 reboiler REB1 of the following reason stated in the table below:

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Part 63 Subpart JJJJJ Applicability
REB1*	2E	Reboiler 1	2005	750,000 BTU/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 3.1.9 – reference to reboiler REB1 was removed because the reboiler is defined as a “fuel burning unit” (45CSR§10-2.8), not a “source operation”, therefore the 45CSR§10-4.1 limit (2,000 parts per million of sulfur dioxide) is not applicable.
8. Old requirements 3.2.1 and 3.2.3 were deleted. Prior to the determination that 45CSR10 is not applicable to engines, the permit used FERC limits to demonstrate compliance with the 2,000 parts per million of sulfur dioxide (45CSR§10-4.1) and 50 grains of hydrogen sulfide per 100 cubic feet of gas (45CSR§10-5.1) limits. Now, that the non-applicability demonstration has been made, using the FERC limit to demonstrate compliance with 45CSR10 limits is no longer necessary. Therefore old requirements 3.2.1 and 3.2.3 have been removed.
9. Requirement 5.1.5 – this provision (45CSR§6-4.5, underlying R13-2626 requirement 6.1.5) is more intended for incinerators burning solid materials, therefore it was found not applicable to DEHY1 and was left out of the permit.

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: July 20, 2011
Ending Date: August 19, 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

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Division of Air Quality
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Response to Comments (Statement of Basis)

Not applicable.