

Fact Sheet



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

Permit Number: **R30-10300009-2011**
Application Received: **January 20, 2011**
Plant Identification Number: **10300009**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Hastings Extraction Plant**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Physical Location: Pine Grove, Wetzel County, West Virginia
UTM Coordinates: 528.64 km Easting • 4377.66 km Northing • Zone 17
Directions: From Clarksburg take Route 20 North approximately 37 miles to Hastings. Station is on left side of the road.

Facility Description

Hastings Extraction Plant is a natural gas liquids extraction facility. Propane and heavier components of natural gas are removed through a turbo-expander cryogenic process. The heavier hydrocarbons are fractionated in to the products propane, iso-butane, n-butane, and natural gasoline. The SIC code for this facility is 1321. There are no air pollution control devices associated with this facility or permit; therefore, there are no CAM requirements.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2010 Actual Emissions
Carbon Monoxide (CO)	77.65	17.02
Nitrogen Oxides (NO _x)	96.99	20.60
Particulate Matter (PM ₁₀)	5.32	Not reported

Total Particulate Matter (TSP)	5.32	3.24
Sulfur Dioxide (SO ₂)	7.21	0.15
Volatile Organic Compounds (VOC)	1,321.03*	700.00

Hazardous Air Pollutants	Potential Emissions	2010 Actual Emissions
Formaldehyde	0.32	0
Acrolein	0.03	0
Acetaldehyde	0.06	0
Benzene	0.05	0
Ethylbenzene	< 0.01	0
Hexane	0.88	0.43
Toluene	0.02	0
Xylene	0.01	0
Propylene	0.06	0
TOTAL HAPs	1.44	0.43

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

*PTE for VOCs increased from 523.37 TPY to 1,321.03 TPY since previous renewal permit was issued in 2006. The company explained: “The last renewal (2006) appears to have underestimated the loading VOCs using the actual reported emissions without enough safety factor. Also, it didn’t include the fugitive emissions from the loading operations. The realistic estimates are:

- Isobutane – 306 TPY from 619 railcars
- N-butane – 558 TPY from 1,128 railcars
- NGL – 430 TPY from 869 railcars
- NGL – 2 TPY from trucks
- Total Loading VOCs – 1,296 TPY

The loading emissions are all fugitive and AP-42 factors were used to calculate the emissions. AP-42 relies on the number of railcars or trucks that are loading. As the gas composition that the plant processes changes, the volumes of products changes. Therefore, the number of trucks or railcars changes. The shown above utilize the greatest amount for each product for the last 3 years plus a 25% safety factor”.

Title V Program Applicability Basis

This facility has the potential to emit 96.99 TPY of NO_x, 77.65 TPY of CO and 1,321.03 TPY of VOCs. Due to this facility's potential to emit over 100 tons per year of VOCs, 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 45CSR16 WV Code § 22-5-4 (a) (14) 45CSR30 40 C.F.R. Part 60, Dc 40 C.F.R. Part 60, Kb 40 C.F.R. Part 60, Subpart IIII 40 C.F.R. Part 60, KKK 60 C.F.R. Part 60, VV ¹ 40 C.F.R. Part 61 40 C.F.R. Part 63, Subpart ZZZZ 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. Pre-construction permit Standards of Performance for New Stationary Sources Pursuant to 40CFR60 The Secretary can request any pertinent information such as annual emission inventory reporting Operating permit requirement Small Industrial-Commercial-Institutional Steam Generating Units Volatile Organic Liquid Storage Vessels Standards of Performance for Stationary Ignition Internal Combustion Engines Equipment leaks of VOC from Onshore Natural Gas Processing Plants Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry Asbestos inspection and removal National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

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 (if any)
R13-1045	October 25, 1988	
R13-2468C	November 18, 2010	

¹Requirements incorporated by reference in 40 CFR60, Subpart KKK.

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. Emission Units Table 1.0 – “Backup Generator” AUX02 was re-named to “Emergency Generator” in order to be consistent with names of similar generators AUX03 and AUX04. Added an emission point LOAD / emission unit 006-01 for “Gasoline, Propane, Isobutane and n-Butane Loading Railcar Racks” fugitive emissions underestimated before (see footnote under the Emission Summary table above). The company is working on a project to capture and recycle the fugitives back through the plant by the end of the year of 2011. This will eliminate the emissions and regain the lost value of the products.
2. Requirement 3.1.9 – language was revised to include more applicable requirements and to correspond with the original Part 60 Subpart KKK language.
3. Requirement 3.2.1 (underlying R13-2468 requirement 4.2.1) - was moved to Diesel Fired Fire Pumps Section 9 (requirement 9.4.1) to cover recordkeeping of hours of operation and fuel usage for EN01, EN02 & EN03. Heater HTR3 recordkeeping of hours of operations and fuel usage is covered in requirement 5.4.1, and generator AUX02 recordkeeping of hours of operation is included under requirements 6.4.1 and 6.4.2.
4. Section 6.0 - provisions of Part 63 Subpart ZZZZ “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines” applicable to the following reciprocating internal combustion engines (RICE):

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAP emissions
EN04	150 HP	Spark (SI)	Non-emergency, 4SRB	1971 (existing)*	Area source
AUX02	50KW (67 HP)	Spark (SI)	emergency	2002 (existing)*	Area source
AUX03	40KW	Spark (SI)	emergency	2004 (existing)*	Area source
AUX04	85K	Spark (SI)	emergency	2005 (existing)*	Area source

* area source units constructed before June 12, 2006 (§63.6590(a)(1)(iii))

Because of type and size of engines EN04, AUX02, AUX03 and AUX04, only work and management practices are applicable from Table 2d (requirement 6.1.2), and Table 2b (numerical emission standards) is not applicable. Since AUX02, AUX03 and AUX04 are “an existing stationary emergency RICE”, and AUX02, AUX03, AUX04 and EN04 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 engine EN04 since it is 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 6.4.2) and reporting (requirement 6.5.1).

5. Requirement 7.1.1 citation – added a phrase “Specific Requirement (1)” to for clarity.

6. Section 8.0 – the phrase “(with the exceptions provided in 3.1.9)” was added for clarification purposes, because Part 60 Subpart KKK (requirement 3.1.9) allows an option to comply with exceptions to some provisions of Subpart VV (included in Section 8.0)”.
7. Section 9 - requirement 9.1.14 was added to include Part 63 Subpart ZZZZ provision applicable to engines EN01, EN02 and EN03 (see table below). Per §63.6590(a)(2)(iii), these CI 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 IIII requirements (already included in Section 9 of the permit).

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAP emissions
EN01	300 HP	Compression (CI)	Emergency (fire pump), non-black start	2008 (new)	Area source
EN02	300 HP	Compression (CI)	Emergency (fire pump), non-black start	2008 (new)	Area source
EN03	211 HP	Compression (CI)	Emergency (fire pump), non-black start	2010 (new)	Area source

8. Conditions 9.4.3 and 9.4.4 were re-numbered to 9.4.2 and 9.4.3.

Non-Applicability Determinations

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

1. Part 63, Subpart HH “National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities” is not applicable to Hastings Extraction plant because it is not a major source of HAP.
2. Part 63 Subpart DDDDD “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” is not applicable because Hastings Extraction plant is not a major source of HAPs.
3. Part 63 Subpart JJJJJ “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources” is not applicable to boilers and a 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
004-01	BL01	Boiler; Cleaver Brooks 101-CB	1971	25.1 MMBtu/hr	Gas-fired boiler, exempt per § 63.11195(e)
004-02	BL02	Boiler; Cleaver Brooks 101-CA	2000	16.75 MMBtu/hr	Gas-fired boiler, exempt per § 63.11195(e)
004-05	HTR3	Pipeline Heater; Callidus Tech. OPF	2003	70 MMBtu/hr	Doesn’t meet “hot water heater” or “boiler” definition in § 63.11237

4. 40 CFR 64 – emission units do not have any control devices, therefore, CAM is not applicable to the facility.
5. Requirement 3.7.1 – the following section was removed because rule 45CSR15 was repealed:

“a. 45CSR15 - *National Emission Standards for Hazardous Pollutants (NESHAPs)* - The facility does not exceed the thresholds for hazardous air pollutants (HAPs) of 25 tons per year or 10 tons per year of a single HAP.”

6. From current Fact Sheet:

- 40 C.F.R. 60, Subparts K, Ka - Tank TK03 was constructed after July 23, 1984 (1988) exempting the unit from these two subparts.
- 40 C.F.R. 60, Subpart KKK - EN01 and EN02 were installed before January 20, 1984, which exempts the units from this subpart.
- 40 C.F.R. 60, Subpart LLL - There are no sweetening units at the Hastings extraction plant.
- 45CSR4, To Prevent and Control The Discharge of Air Pollutants into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors EN01, EN02, and AUX02 are exempt from this rule pursuant to 45CSR§4-7, which exempts internal combustion engines until feasible control methods are developed.
- 45CSR19, Nonattainment New Source Review (NSR) - The facility is located within an area classified as in attainment with respect to the National Air Quality Standards (NAAQS) for all criteria pollutants.
- 45CSR21, Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds - Hastings extraction plant is not located in Cabell, Kanawha, Putnam, Wayne, or Wood counties.
- 45CSR27, To Prevent and Control the Emissions of Toxic Air Pollutants - Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment “used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.”

7. There are no Greenhouse Gas Clean Air Act requirements for this facility because this renewal has not triggered a PSD 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: October 5, 2011
Ending Date: November 4, 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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Response to Comments (Statement of Basis)

N/A