

Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on November 22, 2011.

Permit Number: **R30-10300009-2011**
Application Received: **May 29, 2014**
Plant Identification Number: **10300009**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Hastings Extraction Plant**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Permit Action Number: *MM01* Revised: *March 10, 2015*

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 into the products propane, iso-butane, n-butane, and natural gasoline.

The SIC code for this facility is 1321.

This minor modification is based on permit R13-2468D and covers replacement of the 1,000,000 gallon natural gas storage tank TK-03 (005-01) with a new 1,000,000 gallon natural gasoline storage tank TK10 (005-02) with internal floating roof. In addition, existing Fire Water Heaters T-FW-1, T-FW-2, T-FW-3 and T-FW-4 were added to the permit, and the description of the heater 004-05 was changed from "Pipeline Heater" to "Hot Oil Heater".

Emissions Summary

The following emission changes are associated with this modification:

Regulated Pollutants	PTE change, TPY
NO _x	+3.45
CO	+2.32
VOC	+0.68
PM	+0.23
SO ₂	+0.03

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains potential to emit over 100 TPY 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity Requirements for boilers
	45CSR10	To prevent and Control Air Pollutions from the Emissions of Sulfur Oxide
	45CSR13	Pre-construction permit
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40CFR60
	45CSR30	Operating permit requirement
	40 C.F.R. Part 60, Kb	Volatile Organic Liquid Storage Vessels
	40 C.F.R. Part 60, Subpart IIII	Standards of Performance for Stationary Ignition Internal Combustion Engines
	40 C.F.R. Part 60, KKK	Equipment leaks of VOC from Onshore Natural Gas Processing Plants
	40 C.F.R. Part 60, VV ¹	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
State Only:	N/A	

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.

¹Requirements incorporated by reference in 40 C.F.R. 60, Subpart KKK.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2468D	November 5, 2014	

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 was updated – old external floating roof natural gas Tank TK03 was replaced with the new internal floating roof natural gasoline Tank TK10; description of the space heater HTR3 was changed from “pipeline” to “hot oil”; added 4 existing fire water heaters T-FW-1 and T-FW-3 (Hastings Extraction Plant) , and T-FW-2 and T-FW-4 (Galmish).
- 2) Section 5.0 – name of the section was revised from “Pipeline Heater” to “HEP Hot Oil Heater”. The hot oil heater HTR3 was mistakenly listed in the original permit as a “pipeline heater”. The heater consumes process gas instead of natural gas, as indicated in the current permit. The heated oil (thermal fluid) is used to heat the processes in the extraction/fractionation plant. It is subject to 45 CSR §10-5.1 for burning a process gas, and the limit is 50 grains per 100 cu. ft. of carrier gas. Also, it is subject to 20 grains per 100 cu. ft. of carrier gas limit (per definition of pipeline quality natural gas). Since new condition 5.1.4 streamlines these requirements to the 20 grains per 100 cu. ft. limit, streamlining language was added.
- 3) Section 6.0 – name of the section was revised to add “HEP” (Hastings Extraction Plant) and “Fire Water Heaters [FW-1 and FW-3]”; requirement 6.1.3 for the existing Fire Water heaters was added to restrict fuel type to natural gas in order to demonstrate compliance with the visible emission standard of 45 CSR §2-3.1. No other monitoring is needed since these heaters are less than 10 MMBtu/hr each. According to 45CSR§2-11.1, fuel burning units with a heat input less than 10 MMBtu/hr are exempt from 45CSR§§2-4, 5, 6, 8, and 9.
- 4) Section 7.0 – section name was revised from “Natural Gas Storage Tank TK03 to “HEP Natural Gasoline Storage Tank TK10” to include requirements for the new tank. The tank TK10 is subject to 40 C.F.R. 60 Subpart Kb requirements because it will store natural gasoline (VOL). Per company’s information, site specific maximum true vapor pressure of the natural gasoline is 11.03 psia. This maximum true vapor pressure corresponds to a Reid Vapor Pressure of 15.5 psia for the natural gasoline. Since the maximum true vapor pressure of the natural gasoline is less than 11.6 psia, per requirements of the Subpart Kb, either an internal or external floating roof that meets the specifications of 40 C.F.R. §60.112b(a) must be installed. The company has selected a vessel with an internal floating roof using a double seal system to meet the control requirements of Subpart Kb. The 40 C.F.R. 60 Subpart Kb requirements for the old external floating roof Tank TK03 (7.1.2, 7.2.1, 7.4.2, 7.5.1, 7.5.2 and 7.5.3) were replaced with the 40 C.F.R. 60 Subpart Kb requirements for the new internal floating roof Tank TK10 (7.1.1, 7.2.1, 7.2.2, 7.4.2, 7.5.1 through 7.5.3). The tank is subject to routine inspection of the internal floating roof system and documentation of the maximum true vapor pressure of the natural gasoline in the tank.

- 5) Section 8.0 – name of the section was revised to add “HEP”, “Subpart KKK” and “(LDAR)”. In order to include all the Hastings Extraction Plant LDAR requirements under Section 8.0, and better organize information within the section, the following re-arrangements were made:
- “Standards and Monitoring Requirements” Section was re-numbered as “8.1”,
 - requirements 3.1.9 and 3.1.10 were moved to Section 8.1 and re-numbered to 8.1.1 and 8.1.2 respectively,
 - the opening statement of the Section 8.0 (it didn’t have any numeration) was moved to Section 8.1 and numbered as 8.1.3,
 - “8.1. Pumps in light liquid service” was re-numbered to 8.1.3.1;
 - “8.2. Pressure Relief Devices in gas/vapor service” was re-numbered to 8.1.3.2.
 - “8.2.2. Recordkeeping” section was re-numbered to 8.2.
 - “8.3. Sampling Connection Systems” section was renumbered to 8.1.3.3.
 - “8.4. Open-Ended Valves or Lines” section was renumbered to 8.1.3.4.
 - “8.5. Valves in gas/vapor service and in light liquid service” section was renumbered to 8.1.3.5.
 - “8.6. Pumps and Valves in heavy liquid service, PRESSURE RELIEF DEVICES in light liquid or heavy liquid service, and CONNECTORS” section was renumbered to 8.1.3.6.
 - “8.7. Delay of Repair” section was renumbered to 8.1.3.7.
 - “8.8. Closed Vent Systems and Control Devices” section was renumbered to 8.1.3.8.
 - “8.9. Alternative Standads for Valves” section was renumbered to 8.1.3.9 and conditions h, i, j and k were added to address additional 40 C.F.R. 60 Subpart VV requirements.
 - “8.3 Reporting Section” was added,
 - Conditions 8.2.1 and 8.3.1 were added to address additional recordkeeping and reporting requirements of 40 C.F.R. 60 Subpart KKK.
- 6) Section 9.0 – name of the section was revised to add “Galmish” and “Fire Water Heaters [FW-2 and FW-4]”; requirements 9.1.5 and 9.4.1 for firewater pumps EN01, EN02 and EN03 were removed from R13-2468D because revised requirements 9.1.2, 9.1.4 and renumbered condition 9.4.1 contain all the information that was previously included in 9.1.5 and 9.4.1; renumbered requirements 9.1.6 and 9.1.9 are kept in the permit, regardless that they are not included with the latest revision of the R13-2468D permit, because they include applicable 40 C.F.R. 60 Subpart IIII requirements and compliance demonstration for firewater pumps EN01, EN02 and EN03; requirement 9.1.11 for the heaters FW-2 and FW-4 was added to restrict fuel type to natural gas in order to demonstrate compliance with the visible emission standard of 45 CSR §2-3.1. No other monitoring is needed since these heaters are less than 10 MMBtu/hr each. According to 45CSR§2-11.1, fuel burning units with a heat input less than 10 MMBtu/hr are exempt from 45CSR§§2-4, 5, 6, 8, and 9.

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 (area source) according to §63.760(b)(2), because it doesn’t have a triethylene glycole (TEG) dehydration unit.

- 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 heaters 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
T-FW-1	FW-1	Fire Water Heater (tankless unit that is used for fire water tanks to make sure the water in the tanks doesn’t freeze)	2002	0.2 MMBtu/hr	Meets “hot water heater” definition in § 63.11237, therefore per § 63.11195 (f) the Subpart is not applicable
T-FW-2	FW-2	Fire Water Heater (tankless unit that is used for fire water tanks to make sure the water in the tanks doesn’t freeze)	2006	1.65 MMBtu/hr	Meets “hot water heater” definition in § 63.11237, therefore per § 63.11195 (f) the Subpart is not applicable
T-FW-3	FW-3	Fire Water Heater (tankless unit that is used for fire water tanks to make sure the water in the tanks doesn’t freeze)	2010	3 MMBtu/hr	Meets “hot water heater” definition in § 63.11237, therefore per § 63.11195 (f) the Subpart is not applicable
T-FW-4	FW-4	Fire Water Heater (tankless unit that is used for fire water tanks to make sure the water in the tanks doesn’t freeze)	2012	1.65 MMBtu/hr	Meets “hot water heater” definition in § 63.11237, therefore per § 63.11195 (f) the Subpart is not applicable

- 4) 40 C.F.R. 64, *Compliance Assurance Monitoring* – the new natural gasoline Tank TK10 has a VOC emission limit of 1.4 TPY, and an internal floating roof that’s supposed to reduce VOC emissions by 95%. As per §64.1 “for the purpose of this part, a control device does not include passive control measures that act to prevent pollutants from forming such as the use of seals, lids, or roofs to prevent the release of pollutants”, therefore CAM is not applicable to the new gasoline Tank TK10 because the internal floating roof is not defined as a control device under CAM.
- 5) Permit R13-1045 was superseded and replaced by permit R13-2468D.
- 6) Old requirement 5.1.4 was deleted because it was streamlined with requirement 5.1.2.

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: N/A

Ending Date: N/A

Point of Contact

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

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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)

N/A