



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475 • FAX: (304) 926-0479

Joe Manchin, III, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2468C
Plant ID No.: 103-00009
Applicant: Dominion Transmission, Inc. (DTI)
Facility Name: Galmish/Hastings Extraction Plant
Location: Pine Grove, Wetzel County
NAICS Code: 211112
Application Type: Modification
Received Date: August 30, 2010
Engineer Assigned: Jerry Williams II, P.E.
Fee Amount: \$1,000.00
Date Received: August 30, 2010
Complete Date: September 28, 2010
Due Date: December 27, 2010
Applicant Ad Date: September 1, 2010
Newspaper: *Wetzel Chronicle*
UTM's: Easting: 525.31 km Northing: 4379.48 km Zone: 17
Lat/Long: 39.5646, -80.7053
Description: Installation of a new diesel fire pump engine at the Galmish propane spheres.

DESCRIPTION OF PROCESS

The following process description was taken from Permit Application R13-2468C:

Galmish is a facility used for the loading of natural gasoline, propane, n-butane, and isobutene onto railcars and trucks. The products are produced by the natural gas extraction process at Hastings Extraction Plant. The products are piped to Galmish awaiting sale and transportation. The operations of Galmish are covered under the Title V Operating Permit for Hastings Extraction Plant.

The new diesel fired fire pump will be used for emergency firewater protection of the loading racks.

SITE INSPECTION

A site inspection was conducted on March 11, 2010 by Becky Johnson of the DAQ Enforcement Section. According to Air Trax, the facility was operating in compliance at that time.

Directions as given in the permit application are as follows:

From Clarksburg, take Rt. 20 North approximately 37 miles to Hastings. The station entrance is on the left side of the road.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions were estimated using emission factors from engine manufacturer data. Maximum controlled point source emissions from DTI's diesel fired fire pump engine (EN03) are shown in the following table.

Emission Point ID	Emission Unit ID	Process Unit	Pollutant	Maximum Controlled Emission Rate	
				Hourly (lb/hr)	Annual (ton/year)
EN03	001-03	John Deere 6068HFC48B Diesel Fire Pump Engine 211 hp	Particulate Matter	0.04	0.16
			Sulfur Dioxide	0.44	1.91
			Nitrogen Oxides	1.21	5.30
			Carbon Monoxide	0.28	1.22
			Volatile Organic Compounds	0.05	0.20
			Total Hazardous Air Pollutants	~0.01	0.06

REGULATORY APPLICABILITY

The following rules apply to the modification:

45CSR13 (Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation)

45CSR13 applies to this source due to the fact that DTI's modification is subject to a substantive requirement of an emission control rule (40CFR60, Subpart IIII) promulgated by the Secretary.

45CSR16 (Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60)

45CSR16 applies to this source by reference of 40CFR60 Subpart IIII. DTI is subject to the recordkeeping, monitoring, and testing required by 40CFR60 Subpart IIII.

45CSR30 (Requirements for Operating Permits)

This rule provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act, and provides for a transition period prior to the implementation of the permitting system.

The facility is a major source of regulated air pollutants, as defined in section 2.26, and is required to update their existing Title V permit to reflect the proposed changes outlined in this modification.

40CFR60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

DTI's fire pump engine (EN03) is subject to 40CFR60 Subpart IIII, which sets forth emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject internal combustion engine. The emission limits for the subject engine (EN03) are the following: NMHC+NO_x – 3.0 g/hp-hr (1.40 lb/hr); CO – 2.6 g/hp-hr (1.21 lb/hr); and PM – 0.15 g/hp-hr (0.07 lb/hr). Based on the manufacturer's specifications for these engines, the emission standards will be met. The manufacturer's guaranteed emissions for this engine are: NMHC+NO_x – 2.6 g/hp-hr (1.21 lb/hr); CO – 0.6 g/hp-hr (0.28 lb/hr); and PM – 0.08 g/hp-hr (0.04 lb/hr). Because the engine will be certified by the manufacturer, DTI will not be required to perform an initial performance test.

The following regulations do not apply to the facility:

45CSR14 (Permits for Construction and Modification of Major Sources of Air Pollution for the Prevention of Significant Deterioration)

The modification of the Galmish/Hastings Extraction Plant does not constitute a major modification under 45CSR14.

The following regulations may apply to the facility:

40CFR63 Subpart ZZZZ (National Emission Standards for Reciprocating Ignition Internal Combustion Engines)

40CFR63 Subpart HH (National Emission Standards for Hazardous Air Pollutants: Oil and Natural Gas Production and National Emission Standards for Hazardous Air Pollutants: Natural Gas Transmission and Storage)

40CFR63 Subpart HHH (National Emission Standards for Hazardous Air Pollutants: Natural Gas Transmission and Storage)

WVDEP DAQ did not determine whether the permittee is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart HH and 40 CFR 63, Subpart ZZZZ.

These promulgated national emission standards for hazardous air pollutants (NESHAP) limit emissions of hazardous air pollutants (HAP) from oil and natural gas production and natural gas transmission and storage facilities. These final rules implement section 112 of the Clean Air Act (Act) and are based on the Administrator's determination that oil and natural gas production and natural gas transmission and storage facilities emit HAP identified on the EPA's list of 188 HAPs.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

There will be small amounts of various non-criteria regulated pollutants emitted from the combustion of natural gas. However, due to the concentrations emitted, detailed toxicological information is not included in this evaluation.

AIR QUALITY IMPACT ANALYSIS

The changes to this facility do not constitute a major modification under 45CSR14. Based on the nature of the emissions and the annual emission rate, no air quality analysis was performed. However, air dispersion modeling will be required if the Director finds existing circumstances and/or submitted data that provide cause for an assessment to be made concerning whether this facility may interfere with attainment or maintenance of an applicable ambient air quality standard or cause or contribute to a violation of an applicable air quality increment.

MONITORING OF OPERATIONS

DTI will be required to perform the following monitoring and recordkeeping:

1. Monitor and record quantity of natural gas consumed in the diesel fired fire pump engine.
2. Monitor and record hours of operation of the diesel fired fire pump engine.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates DTI's Galmish/Hastings Extraction Plant meets all the requirements of applicable regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the Wetzel County location should be granted a 45CSR13 modification permit for their facility.

Jerry Williams II, P.E.
Engineer

Date