

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 July 24, 2012.

Permit Number: **R30-04100013-2012**
Application Received: **June 27, 2014**
Plant Identification Number: **03-54-04100013**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Lightburn Station**
Mailing Address: **445 West Main Street**
Clarksburg, WV 26301

Permit Action Number: *MM02* Revised: *December 29, 2014*

Physical Location:	Jane Lew, Lewis County, West Virginia
UTM Coordinates:	547.54 km Easting • 4331.11 km Northing • Zone 17
Directions:	From Charleston take I-79N to Jane Lew. Take Exit 105 (Jane Lew Exit) and make a left on County Road 7 (Berkin-Jane Lew Road). Stay on CR-7 until it intersects Route 19 (Main Avenue). Make a right on Route 19 and make the immediate left on Broad Run Road. Stay on Broad Run Road until it intersects County Road 1 (Old Mill Road/Fork River Road/Jacksons Mill Road) and make a right. Stay on CR 1 for about 500 yards and Lightburn Station is on the right.

Facility Description

The Lightburn Station consists of a natural gas extraction plant, Lightburn Extraction Plant (LEP), and a compressor station, Lightburn Compressor Station (LCS). LEP is located adjacent to LCS. The LEP and LCS are located on contiguous property and are under common control. However, the plants do not belong to the same industrial grouping (SIC). The LCS operates under SIC Code 4922 (Pipeline Transmission of Natural Gas), and the LEP operates under SIC Code 1321 (Natural Gas Liquid Extraction).

Lightburn Compressor Station (LCS)

The existing permitted emission units at LCS consist of two (2) 2,000 HP natural gas fired reciprocating engines (EN01, EN02), three (3) 4,000 HP natural gas fired reciprocating engines (EN03, EN04, EN05), two (2) 6,060 HP natural gas fired reciprocating engines (EN06 (6), EN07 (7)), one (1) 1,085 HP auxiliary generator (AUX02 (11)), two (2) dehydration unit stills (DEHY01, DEHY02), two (2) boilers (BLR01, BLR02 (14)), one (1) heater (HTR01), two (2) reboilers (RBR01, RBR02 (13)), and two (2) dehydration unit flares (DEHY1, DEHY2).

Lightburn Extraction Plant (LEP)

The existing permitted emission units at LEP consist of two (2) 3,550 HP natural gas fired reciprocating engines (EN08, EN09), two (2) 216 HP fire pump engines (EN10, EN11), four (4) 60,000-gallon aboveground natural gas liquid storage tanks (008-01, 008-02, 008-03, 008-04), two (2) natural gas liquid loading racks (009-01, 009-02), one (1) emergency and maintenance flare (FLARE3), two (2) 290-gallon aboveground diesel fuel storage tanks (014-01, 014-02), one (1) 500-gallon aboveground methanol storage tank (014-03), and one (1) 254 HP emergency generator (012-01). The natural gas capacity of the LEP is 52 MMSCFD, and the plant is estimated to produce 2,244 barrels/day of natural gas liquids. The LEP receives natural gas from the existing Kennedy Compressor Station and Wymer Junction.

Scope of the Minor Modification

This minor modification (MM02) is for the replacement of the two (2) existing Glycol Dehydration Unit (GDU) flares (DEHY1 and DEHY2) with two (2) new Questor Q250 enclosed flares (each rated at 539.5 scfm and with a 0.05 mmBtu/hr natural gas-fired pilot light) to be designated as F1 and F2 at the LCS. The changes were approved under R13-2823D on 10/6/2014.

Emissions Summary

The emissions changes associated with previous modifications (SM01, MM01) and this proposed modification (MM02) are given in the following table. Information for the renewal and previous modifications is from the respective fact sheets for each action. The information for MM02 is from Attachment S of the MM02 application. All units are tons per year (tpy).

Pollutant	Renewal	SM01	MM01	MM02	Proposed
CO	1,085.46	0	+0.06	+4.75	1,090.27
NO _x	2,495.81	0	+0.25	+5.66	2,501.72
PM ₁₀	12.57	+0.05	-0.02	0	12.60
TSP	12.57	+0.26	0	+7.68	20.51
SO ₂	0.80	0	0	0	0.80
VOC	567.77	0	-0.01	+2.39	570.15
Formaldehyde	51.05	0	0	0	51.05
Total HAPs	85.08	0	0	+0.61	85.69

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 1,090.27 tons per year of Carbon Monoxide; 2,501.72 tons per year of Nitrogen Oxides; 570.15 tons per year of Volatile Organic Compounds; 51.05 tons per year of Formaldehyde; and 85.69 tons per year of aggregate Hazardous Air Pollutants. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Dominion Transmission's Lightburn Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Lightburn Compressor Station and Lightburn Extraction Plant are two separate facilities for determining major source status under NESHAPs because one is transmission/storage and one is production/gathering. Lightburn Compressor Station’s potential emissions are such that it is a major source of HAPs, while Lightburn Extraction Plant’s potential emissions are an area source of HAPs.

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:	45CSR6 45CSR13 45CSR30 45CSR34 40 C.F.R. 63 Subpart HHH 40 C.F.R. 63 Subpart DDDDD	Air Pollution from Combustion of Refuse Permits for Construction, Modification, Relocation and Operation of Stationary Sources Operating permit requirement. Emission standards for HAPs Natural gas transmission and storage facilities MACT Major Source Boiler MACT
State Only:	N/A	

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>
R13-2823D	October 6, 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," which may be downloaded from DAQ's website.

Determinations and Justifications

- I. **45CSR6 – CONTROL OF AIR POLLUTION FROM COMBUSTION OF REFUSE.** The proposed new enclosed flares are subject to this rule since each meets the definition of an “incinerator” under 45CSR§6-2.8. The substantive requirements applicable to the flare are discussed below. It is important to note that under 45CSR§6-1.1.a., the language reads “[t]his rule establishes emission standards for particulate matter and requirements for activities involving incineration of refuse which are not subject to, or are exempted from regulation under a federal counterpart for specific combustion sources.” While 40 C.F.R. 63, Subpart HHH does have applicable requirements for the flares (see below), this regulation does not address potential particulate matter emissions from flares. Therefore, it is determined that 45CSR6 does apply to the new GDU flares. In particular, the PM mass emission rate limit prescribed by 45CSR§6-4.1. is applicable to both flares. According to the application, the maximum mass flow rate to each flare is 1,454.3 lb/hr. Hence, the applicable limitation is 3.95 lb/hr for each flare. Permit R13-2823D, condition 14.1.2. does not specify the PM limit. However, the Engineering Evaluation for the NSR permit states the limit as being 3.96 lb/hr. The difference is in rounding up the mass flow rate in tons per year before multiplying by the factor 5.43. The limit computed above in this Fact Sheet is based on rounding the final result. At this point the difference is without consequence since the permittee estimated PM emissions from each flare at approximately 0.87 lb/hr. The existing condition 5.1.1. is modified to account for the new flare capacities and their respective emission limits. As with the existing flares, the proposed new flares are subject to the opacity and odor requirements in 45CSR§§6-4.3., 4.4., 4.5., and 4.6. These requirements are in conditions 5.1.2. through 5.1.5.
- II. **45CSR13, Permit No. R13-2823D.** The following changes are made in various sections and conditions in the Title V permit in order to incorporate the changes approved in the underlying NSR permit R13-2823D.
- a. Section 1.1. – The emission units table was revised to list the new flares as written in the NSR permit.
 - b. Section 1.2. – The table was updated to the current NSR permit number and issuance date.
 - c. Condition 5.1.1. – The existing condition was revised for the new flare design capacities and PM emission limit for each flare. The citation of authority was revised to include underlying requirement 14.1.2.
 - d. Condition 5.1.2. – The citation of authority was revised to include underlying requirement 14.1.3.
 - e. Condition 5.1.3. – The citation of authority was revised to include underlying requirement 14.1.4. The underlying requirement includes the exclusion of up to six minutes in every sixty minutes for stoking operations. The Title V permit condition, however, will continue to exclude this non-applicable language since there are no stoking operations at the facility.
 - f. Condition 5.1.8. – The citation of authority was revised to include underlying requirement 14.1.5.
 - g. New condition 5.1.9. has been written to incorporate underlying requirement 14.1.1.
 - h. References to DEHY1 and DEHY2 are changed to F1 and F2, respectively, in the following sections of the permit:
 - i. Table of Contents;
 - ii. Section 1.1. Emission Units Table;
 - iii. Section 5.0 heading; and
 - iv. Conditions 5.1.1. through 5.1.5., 5.1.8., and 5.2.1. through 5.2.3.

III. **40 C.F.R. 63 Subpart HHH – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM NATURAL GAS TRANSMISSION AND STORAGE FACILITIES.** Subpart HHH applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of HAPs emissions. Dominion’s Lightburn facility is a major source of HAPs and is defined as a natural gas transmission and storage facility that meets the above description. Therefore, applicable affected sources are subject to Subpart HHH. GDUs are included as affected facilities and both the GDUs at the Lightburn facility are already subject to Subpart HHH. One choice for compliance with the GDU emission standards under §63.1275(b)(1)(i) is to use a flare pursuant to the requirements of §63.1281. Therefore, the flares used for controlling the GDU regenerator overheads shall be subject to the control device requirements given specifically under §63.1281(d)(1)(i). The requirements are given in Appendices A and B of the Title V permit.

IV. **40 C.F.R. 63 Subpart DDDDD – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MAJOR SOURCES: INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS.** This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. The permittee is subject to this subpart since it owns or operates an industrial boiler as defined in §63.7575 that is located at, or is part of, a major source of HAP. In particular, the Natural Gas Boiler BLR01 (Em. Unit ID: 005-01) is subject to this regulation and placeholder language is already in the Title V permit as condition 4.5.1. The compliance date in the permit needs to be revised in order to reflect the current regulation. Therefore, the compliance date is changed to January 31, 2016, as given in 40 C.F.R. §63.7495(b).

Non-Applicability Determinations

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

1. **45CSR14 – PERMITS FOR CONSTRUCTION AND MAJOR MODIFICATION OF MAJOR STATIONARY SOURCES FOR THE PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY.** The Lightburn Facility is defined as a “major stationary source” under 45CSR14. The changes at the facility permitted under R13-2823D, and incorporated into the Title V permit as minor permit modification MM02, do not trigger Prevention of Significant Deterioration (PSD) requirements as determined in the Engineering Evaluation for permit R13-2823D. Specifically, the aggregate PTE associated with both GDUs (as given under Table 3-1 in Attachment N of the permit application) is less, on a pollutant by pollutant basis, than the “significant” thresholds under 45CSR§14-2.74.a. and therefore, this replacement of the GDU flares (the only “emission units” subject to permitting under this action) will not be defined as a “major modification” under 45CSR14.

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: Not applicable for minor modifications.
Ending Date: N/A

Point of Contact

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

Denton McDerment
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478
denton.b.mcderment@wv.gov

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)

No comments were received from U.S. EPA.