

Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the original Fact Sheet corresponding with the issuance of the initial Title V operating permit issued on January 10, 2017.

Permit Number: **R30-10300006-2017**
Application Received: **November 20, 2015**
Plant Identification Number: **10300006**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Hastings Compressor Station**
Mailing Address: **925 White Oaks Blvd.**
Bridgeport, WV 26330

Permit Action Number: *SM01*

Revised: *October 23, 2017*

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 on left side of the road.

Facility Description

Hastings Compressor Station is a natural gas facility covered by Standard Industrial Classification (SIC) Code 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. This facility (compressor station) includes three adjacent facilities covered by this Title V permit. The facilities and equipment they currently consist of are as follows:

- 1) Hastings Station – production facility:
 - two (2) 500 HP Cooper GMXE-6 engines,
 - one (1) 7.5 mmscf/day glycol dehydration unit with flare,
 - one (1) 0.55 MMBtu/hr reboiler,
 - one (1) natural gas fired auxiliary generator rated at 128HP for emergency use.

- 2) Mockingbird Hill Station (underlying permit - R13-2555C) – transmission facility:
 - two (2) 87 HP Capstone Microturbines and one (1) 80 HP Capstone microturbine,
 - one (1) 8175 HP Solar Taurus 60 Turbine,
 - one (1) 1.25 MMBtu/hr boiler

- 3) Lewis Wetzel Station (underlying permit - R13-2870A) – transmission facility:
 - one (1) 3,550 HP Caterpillar Model G3612TA Compressor Engine,
 - one (1) 530 HP Cummins Model KTA19G Auxiliary Generator,
 - one (1) 4.5 MMBtu/hr natural gas fired boiler

This significant modification includes changes covered by recently issued permit R13-3249A related to Hastings Station. They include the replacement of the following old equipment:

- two (2) 500 HP Cooper GMXE-6 engines (EN01 and EN02),

Proposed new replacement equipment includes:

- one (1) 542 bhp Ajax DPC-2803 LE reciprocating engine (EN04),
- one (1) 347 bhp Ajax DPC-2802 LE reciprocating engine (EN05).

The replacement will take place in 2019.

Emissions Summary

The following emission changes are associated with this modification:

Regulated Pollutants	PTE change, TPY
NO _x	- 206.48
CO	- 10.86
VOC	-16.24
PM ₁₀	- 0.25
TSP	- 0.25
SO ₂	0
Formaldehyde	-1.29
Total HAPs	-1.41

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains potential to emit over 100 TPY of CO. 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 modification has been found to be subject to the following applicable rules:

Federal and State:

45CSR13	Pre-construction permit
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40CFR60
45CSR30	Operating permit requirement
45CSR34	Emission Standards for HAPs
40 C.F.R. Part 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 C.F.R. Part 60, Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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

The following is the only permit related to this modification:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-3249A	June 13, 2017	

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

1. Emission Units Table 1.1 - revised to add new engines EN04 and EN05 with 542 bhp and 347 bhp capacity (respectively) vented to Oxidation Catalysts. These engines will replace old engines EN01 and EN02 in 2019. Since the new engines will not be installed until 2019, the old engines are still listed in the Emission Units table with a footnote added: "These engines will be abandoned in place upon commercial operation of engines EN04 and EN05". Also, Emission Unit IDs "002-06", "004-02" and "005-06" were re-named to "AUX06", "DEHY01" and "RBR02" respectively (to match their Emission Point IDs). In addition, Emission Point ID "DEHY1" was re-named to "DEHY01" for the TEG Dehydration Unit.
2. Conditions 3.5.3, 3.5.5 and 3.5.6 – revised boilerplate reporting requirements.
3. Conditions 5.4.2 and 5.4.3 were moved to Section 3.4 (3.4.4 and 3.4.5), and were combined with identical requirements 5.4.2 and 5.4.3 of the underlying permit R13-3249A. Condition 5.4.4 was re-numbered to 5.4.2.

4. Section 6.0, 40 CFR Part 63 Subpart ZZZZ – per 40 CFR §63.6590(a)(2)(iii), the new SI engines EN04 and EN05 are considered new units (area source units constructed on or after June 12, 2006). Therefore, per 40 CFR §63.6590(c)(1) (requirement 6.1.3), they are only subject to 40 CFR 60 Subpart JJJJ provisions. Requirements 6.1.1 and 6.4.1 applicable to old engines EN01 and EN02 are left in the permit until the new engines EN04 and EN05 are installed.
5. Section 6.0, 40 CFR Part 60 Subpart JJJJ – new engines EN04 and EN05 are manufactured after January 1, 2008 (EN04) and after July 1, 2008 (EN05), therefore per 40 CFR §60.4230(a)(4)(ii) and 40 CFR §60.4230(a)(4)(iii) (respectively) they are subject to requirements of this subpart.

Engine	Design Capacity	Ignition	Use/Type	Year installed	Source of HAPs
EN04	542 bhp	Spark (SI)	Non-Emergency, 2SLB	2019 (new)	Area source
EN05	347 bhp	Spark (SI)	Non-Emergency, 2SLB	2019 (new)	Area source

Per 40 CFR 60 Subpart JJJJ §60.4233(e) the new engines EN04 and EN05 are subject to emission standards in Table 1 to the subpart (requirement 6.1.4). Emission limits in **ppmvd at 15% O₂** set forth in the R13-3249A (requirements 5.1.1.a.i through iii and 5.1.2.a.i through iii) are based on the engines' manufacturer's data sheet, and are more stringent than the standards in the same units set forth in the Table 1 of the subpart, therefore they were streamlined with the limits in the Table 1 of the subpart, and a footnote was added: "R13-3249 emission limits based on manufacturer's Data Sheet. Compliance with these limits will assure compliance with emission limits of 40 CFR 60 Subpart JJJJ, Table 1". Also, emission limits in TPY (based on the Subpart JJJJ standards in **g/HP-hr** in the Table 1 of the Subpart) were added to the requirement 6.1.4 (underlying R13-3249A requirements are 5.1.1.a.i through iii and 5.1.2.a.i through iii). In addition, formaldehyde emission limits set forth in the R13-3249A (requirements 5.1.1.a.iv and 5.1.2.a.iv) were included under requirements 6.1.5 and 6.1.6.

Since the engines have not been certified by an engine manufacturer to meet the emission standards in §60.4231, they are subject to testing requirements. Since EN05 capacity ≤ 500HP, per 40 CFR §§60.4243(b)(2)(i) and (f) (requirements 6.1.4, 6.3.2 and 6.3.3) it is only subject to initial testing. EN04 is subject to initial and subsequent compliance testing as per 40 CFR §60.4243(b)(2)(ii) (requirements 6.1.4 and 6.3.1). An existing testing requirement §60.4243(f) (6.1.4 (f)) applicable to emergency generator AUX06 and to engine EN05 was moved from Section 6.1 Limitations and Standards to Section 6.3 Testing Requirements (condition 6.3.3) for consistency. Also, the permittee is required to keep a maintenance plan for both engines per 40 CFR §60.4243(b)(2) (requirements 6.1.4 and 6.4.3).

6. Section 6.0, 40 CFR Part 60, Subpart OOOOa - the new engines EN04 & EN05 are used to drive reciprocating compressors at a station that is part of a field gas gathering system. 40 CFR Part 60 Subpart OOOOa establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG) in the form of a limitation on emissions of methane and volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from crude oil and natural gas production sites that commenced construction, modification, or reconstruction after September 18, 2015, (§60.5360a(a)). As it was determined in the R13-3249A, the new natural gas reciprocating compressors (EN04 and EN05) are affected sources under 40 CFR §60.5365a(c). The collection of fugitive emissions components at a compressor station are an affected facility under 40 C.F.R. §60.5365a. Under 40 C.F.R. §60.5365a(j)(2), the collection of fugitive emissions components is considered a modification for purposes of 40 C.F.R. §60.5397a if one or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced. When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for purposes of 40 C.F.R. §60.5397a. The project does not meet the criteria of 40 C.F.R. §60.5365a(j)(2), because the two new compressors (rated at 347 bhp and 542 bhp) with total horsepower of

889 bhp are 111 hp less than the total horsepower of the two old compressors (rated at 500 bhp each) with total horsepower of 1,000 bhp. Therefore, the requirements of 40 CFR §60.5397a are not applicable.

Since the compressors were manufactured after September 18, 2015, they are required to meet standards in 40 CFR §60.5385a to replace the rod packing in the reciprocating compressor every 26,000 hours of operation or once every 36 months (requirement 6.1.8), and to demonstrate initial and continuous compliance with the standards by monitoring (requirement 6.2.4), recordkeeping (requirements 6.4.5 and 6.4.6) and reporting (requirements 6.5.2 and 6.5.3). No other sections of this Subpart are applicable.

Non-Applicability Determinations

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

1. Compliance Assurance Monitoring (CAM) – the new engines (EN04 and EN05) have emission limits specified in requirements 6.1.4 (Table 1 to Subpart JJJJ of Part 60), 6.1.5 and 6.1.6. Also, they have control devices (Oxidation Catalysts), but these are considered integral to the design of the equipment. Therefore, engines EN04 and EN05 are not subject to CAM. This determination was also included with condition 3.7.2 (f) (Permit Shield).

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: September 6, 2017
Ending Date: October 6, 2017

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

Natalya V. Chertkovsky-Veselova
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1220 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

N/A