

# Fact Sheet



## For Final Significant Modification Permitting 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 Fact Sheet corresponding with the Title V operating permit issued on May 17, 2011.

Permit Number: **R30-04100011-2011**  
Application Received: **December 1, 2011**  
Plant Identification Number: **03-54-04100011**  
Permittee: **Dominion Transmission, Inc**  
Facility Name: **Kennedy Compressor Station**  
Mailing Address: **445 West Main Street**  
**Clarksburg, WV 26301**

Permit Action Number: *SM02*      Revised: *November 27, 2012*

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Physical Location:      Valley Chapel, Lewis County, West Virginia  
UTM Coordinates:      543.59 km Easting • 4328.71 km Northing • Zone 17  
Directions:              Interstate 79 North to the Jane Lew Exit (Number 105). Turn right on County Route 7 and go 0.8 miles to Jane Lew, intersection of U.S. Route 19. Turn left on U.S. Route 19 and travel 4.7 miles to County Route 12 (Jackson's Mill Road). Turn right on County Route 12 and travel 2.4 miles. Bear left and cross a narrow bridge to Jackson's Mill State 4-H Camp. County Route 12 changes to County Route 10 at this point. Proceed 0.6 miles to the intersection of County Route 1, turn left and go approximately 200 yards to Valley Chapel Road (County Route 10). Turn right and go approximately 1.3 miles. Turn left and cross a wooden plank bridge to the site.

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**Facility Description**

Kennedy Compressor Station is a natural gas transmission 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. The station consists of one (1) 1100 HP natural gas fired reciprocating engine, one (1) 1183HP natural gas fired reciprocating engine, one auxiliary generator, one (1) dehydrator reboiler, one (1) dehydration unit, one (1) dehydration unit still flare and seven (7) storage tanks of various sizes.

This modification is to replace a White Superior 8GTLB reciprocating engine/integral compressor [EN02] with a Caterpillar G3516B reciprocating engine/integral compressor [EN04] and to install a Cummins auxiliary generator WSG-1068 [GE01]. This modification incorporates the changes approved under R13-2837B.

**Emissions Summary**

The emission changes under this significant modification are as follows:

Pollutant	Annual Emission Change (tpy)
PM	-0.30
PM <sub>10</sub>	-0.30
VOC	-24.90
CO	-15.39
NO <sub>x</sub>	-160.67
Formaldehyde	+2.05
Total HAP	+2.09

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility’s potential to emit will drop below the 100 TPY thresholds for NO<sub>x</sub> and VOC. After the proposed changes Dominion Transmission, Inc will become a non-major source pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30; and plans on filing for inactive status as a Title V deferred source.

**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:	45CSR13	Preconstruction permits for minor sources Standards of Performance for New Stationary Sources Operating permit requirement. Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
	45CSR16	
	45CSR30	
	40 C.F.R. 60 Subpart JJJJ	
State Only:	45CSR4	No objectionable odors.

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> )
R13-2837B	July 31, 2012	

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

This Title V significant modification (SM02) includes the changes approved under R13-2837B, issued on July 31, 2012. R13-2837B was a construction permit for the removal and replacement of an existing reciprocating engine/integral compressor and the installation of an auxiliary generator.

Changes to the emission units table are as follows:

- Emission Unit ID EN02 was removed.
- Emission Unit ID EN04 and Emission Unit ID GE01 were added.

Changes in Section 3.0 Facility Wide Requirements.

- All References to EN02 were removed.
- EN03 was removed from the citations of conditions 3.1.9 and 3.1.10 because the engine is not subject to 45CSR10.
- Added condition 3.1.20 to incorporate a condition added in R13-2837B.
- Removed and reserved conditions 3.2.1 and 3.2.2 because 45CSR10 does not apply to engines.
- Added conditions 3.4.4 and 3.4.5 to reflect conditions added in R13-2837B.
- In condition 3.5.3. the EPA address was updated.

Changes to Section 4.0 Source-Specific Requirements [RBR02].

- The citation of Condition 4.1.1. was changed to include "45CSR13, R13-2837B, 4.1.13."

Changes to 5.0 Source Specific Requirements [DEHY02 and Flare F2].

- The citations of conditions 5.1.2, 5.1.3. and 5.1.4. were updated to include the related R13-2837B conditions.

- Language was added to condition 5.1.6 to incorporate the use of a twelve month rolling total to reflect changes made in R13-2387B.
- In condition 5.1.8., the plural was removed from the word flare since there is only one and the emission unit ID F2 was included.
- Citations in conditions 5.4.4-5.4.8 and 5.4.10-5.4.12 were updated to reflect changes in R13-2837B condition numbers.

A Section 6.0 Source Specific Requirements [EN04 and GE01] was added to include the R13-2837B conditions related to the new Emission units EN04 and GE01.

- Engine EN04 is a new 4SLB SI engine with a rating of 1183 hp and GE01 is a new emergency 4SRB SI generator with a rating of 131.6 hp located at an area source of HAPs; as such the engines will show compliance with 40CFR63 Subpart ZZZZ by showing compliance with 40CFR60 Subpart JJJJ as per 40CFR§63.6590(c).
- Under 40CFR60 Subpart JJJJ the engines are subject to the following:
  - ❖ Emission standards for each engine that must be achieved over the entire life of the engines (conditions 6.1.5, 6.1.6, 6.1.7).
  - ❖ The proper operation and maintenance of the AFR controllers on Catalyst CC02 to minimize emissions at all times (condition 6.1.8).
  - ❖ Performance testing procedures (condition 6.3.1) and reporting of each performance test (condition 6.5.2).
  - ❖ For engine EN04 a maintenance plan and records of maintenance must be kept to show compliance. In addition, a performance test must be performed every 8,760 hours of operation or 3 years whichever comes first (condition 6.4.2).
  - ❖ For engine GE01 records of maintenance must be kept to show compliance (condition 6.4.3).
  - ❖ Recordkeeping requirements in condition 6.4.4.
  - ❖ An initial notification (condition 6.5.1).
- Maximum emission limits for EN04 were included from R13-2837B. Compliance with these limits is shown thru limiting the fuel combusted (condition 6.1.2) and recording the amount of fuel used on a twelve month rolling total (condition 6.4.1).
- Generator GE01 is limited to a maximum of 500 hours of operation on a twelve month rolling total. Compliance with this limit will be demonstrated by maintaining records of the quantity of fuel consumed and the hours of operation (condition 6.4.1)
- There are also requirements for the use and monitoring of the catalytic oxidizers, CC01 and CC02 on engine EN04 and Generator GE01 (conditions 6.1.4 and 6.2.1).
- Compliance Assurance Monitoring (CAM) 40 C.F.R. 64 - Catalysts CC01 and CC02 are used to reduce CO emissions from engine EN04 and generator GE01 respectively. EN04 has emission limits from R13-2837B and 40 C.F.R. 60 Subpart JJJJ. The NO<sub>x</sub> and CO emission limits for EN04 from R13-2837B are the same as 40 C.F.R. 60 Subpart JJJJ. GE01 only has emission limits from 40 C.F.R. 60 Subpart JJJJ. Since 40 C.F.R. §64.2(b)(1)(i) exempts emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act, only the R13-2837B VOC and formaldehyde emission limits for EN04 need to be evaluated for CAM applicability. Catalyst CC01 does not control VOC and formaldehyde emissions, therefore CAM does not apply.

## Non-Applicability Determinations

### **Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.**

The construction of EN04 and GE01 and the shutdown of EN02 does not trigger PSD for any non-GHG pollutants. Furthermore, the Kennedy Station is not currently a major GHG source; nor are the emissions

from the project in excess of 75,000 tons/year of CO<sub>2</sub>e. Therefore, Step 2 of the Tailoring Rule does not apply.

### **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 10, 2012  
Ending Date: November 26, 2012

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

Robert Mullins  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> 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**

Robert Mullins  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1243 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

None.