

To: File
From: John Legg
Date: September 22, 2016

John Legg 9/22/16

Subj: R13-2839C: Class II Administrative Update to R13-2839B
Dominion Transmission, Inc.; Loup Creek Compressor Station
Kopperton, Wyoming County, WV 24854
Company ID No.: 109-00019; Permit No.: R13-2839C

On July 5, 2016 the Division of Air Quality (DAQ) received a request to update the horsepower rating on Engine 4 (EN04) at Loup Creek Compressor Station located near Kopperton, Wyoming County, WV. The \$300.00 application fee was received on July 6, 2016, the same day the writer was assigned to review the application. The company's legal advertisement ran on July 13, 2016 in *The Williamson Daily News*. The legal affidavit of publication was received at the DAQ on August 5, 2016, the date the application was deemed to be complete. The class II update should be issued on or around October 5, 2016.

According to the cover letter of the update which is dated June 30, 2016:

During an internal review, the company identified that Engine EN04 was incorrectly labeled in the permit. Per the manufacturer specification sheet (and nameplate on the engine), the engine is rated at 1,150 hp. The manufacture, Caterpillar, has also verified the horsepower rating. Some of the emissions from this source have increased slightly due to the new horsepower rating and corrected calculations, however, the manufacturer emission specifications for NOx, CO and VOC have not changed.

The company's July 13, 2016 legal advertisement advertised the following increases in potential to emit:

| | | |
|------------|---|------------------------------|
| PM10 | - | +0.02 tons per year (ton/yr) |
| SO2 | - | 0.00 ton/yr |
| CO | - | 0.00 ton/yr |
| Nox | - | +0.06 ton/yr |
| VOC | - | -0.16 ton/yr |
| Total HAPs | - | +0.15 ton/yr |

The legal advertisement listed the latitude and longitude coordinates for the facility as:

| | | |
|-----------|---|----------|
| Latitude | = | 37.7397 |
| Longitude | = | -81.5752 |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Type of Change | Control Device |
|------------------|-------------------|--|----------------|-----------------|--------------------------------------|-----------------------------|
| 001-04 | EN04 | Reciprocating Engine/ Integral Compressor; Caterpillar G3516 | 2001 | 1,150 hp | Class II Administrative Update | 2C Oxidation Catalyst |

| Pollutant | Maximum Potential Emission Rate | | | | Estimating Method Used |
|------------------------|---------------------------------|----------|------------|----------|------------------------|
| | Uncontrolled | | Controlled | | |
| | (lb/hr) | (ton/yr) | (lb/hr) | (ton/yr) | |
| PM Filterable | <0.01 | <0.01 | <0.01 | <0.01 | AP-42 |
| PM-10 (Filterable) | <0.01 | <0.01 | <0.01 | <0.01 | AP-42 |
| PM-2.5 (Filterable) | <0.01 | <0.01 | <0.01 | <0.01 | AP-42 |
| PM Condensable | 0.08 | 0.37 | 0.08 | 0.37 | AP-42 |
| SO2 | 0.01 | 0.02 | 0.01 | 0.02 | AP-42 |
| NOx | 3.80 | 16.66 | 3.80 | 16.66 | Manufacturer |
| CO | 4.56 | 19.99 | 0.50 | 2.19 | Manufacturer |
| VOC | 1.24 | 5.44 | 1.24 | 5.44 | Manufacturer |
| Total HAPs | 0.61 | 2.69 | 0.61 | 2.69 | AP-42 |

| Pollutant | Current PTE of EN04 at 1,085 HP | | New PTE of EN04 at 1,150 HP | | Change in PTE | | |
|------------|------------------------------------|----------|--------------------------------|----------|---------------|----------|----------|
| | (lb/hr) | (ton/yr) | (lb/hr) | (ton/yr) | (lb/hr) | (lb/day) | (ton/yr) |
| PM10 | 0.08 | 0.35 | 0.09 | 0.37 | +0.01 | +0.24 | +0.02 |
| SO2 | 0.01 | 0.02 | 0.01 | 0.02 | --- | --- | --- |
| CO | 0.50 | 2.19 | 0.50 | 2.19 | --- | --- | --- |
| Nox | 3.80 | 16.60 | 3.80 | 16.66 | --- | --- | +0.06 |
| VOC | 1.27 | 5.60 | 1.24 | 5.44 | -0.03 | -0.72 | -0.16 |
| Total HAPs | 0.58 | 2.54 | 0.61 | 2.69 | +0.03 | +0.72 | +0.15 |

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify Update



R13-~~2839B~~2839C

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Dominion Transmission, Inc.
Loup Creek Station
109-00019**

*John A. Benedict
William F. Durham
Director*

Issued: September 17, 2012 • Effective: September 17, 2012

|

23.2016

This permit ~~supercedes~~*supersedes* and replaces R13-~~2839A2839B~~ issued on ~~February 28, 2011~~ and R13-~~2324B~~ issued on ~~November 20, 2001~~*September 17, 2012*.

Facility Location: Kopperston, Wyoming County, West Virginia
Mailing Address: ~~445 West Main Street, Clarksburg~~*925 White Oaks Blvd., Bridgeport, WV 2630126330*
Facility Description: Natural Gas Compressor Station
SIC Code: 4922
NAICS Code: 486210
UTM Coordinates: 449.31 km Easting • 4176.86 km Northing • Zone 17
Permit Type: ~~Modification~~*Class II Administrative Update*
Description of Change: ~~Installation of an oxidation catalyst~~*Update the horsepower rating on the 4SLB Caterpillar G2516 Compressor Engine (901-04) so as to (EN04) from 1,085 hp to comply with 40 CFR 63, Subpart ZZZZ 1,150 hp. Some of the emissions increased slightly due to the new horsepower rating and corrected calculations.*

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Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

Unless otherwise stated 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.

1.0. Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|------------------|-------------------|--|----------------|----------------------|----------------|
| DEHY01 | DEHY01 | NATCO Dehydration Unit/Still Column | 2010 | 35 mmscf/day | F1 |
| RBR01 | RBR01 | NATCO Dehydration Reboiler | 2010 | 1.5 mmbTU/hr | NA |
| F1 | F1 | Questor Dehydration Unit Controlled Flare | 2010 | 10 MMBTU/hr | NA |
| 002-02 | EG-01 | Caterpillar G3406 Emergency Generator | 2011 | 367 hp | 1C |
| 001-04 | EN04 | 4SLB Caterpillar Model G3516 Compressor Engine | 2001 | 1,985 150 | 2C |

1.1 Control Devices

| Control Device ID | Emission Point ID | Control Device Description | Year Installed | Control Efficiency |
|-------------------|-------------------|---|----------------|---------------------------------|
| F1 | F1 | Questor Dehydration Unit Controlled Flare | 2010 | 95% (VOC & HAPs) |
| 1C | EG-01 | 3-way NSCR Catalyst | 2011 | 90% (NO _x , CO, VOC) |
| 2C | EN04 | Oxidation Catalyst | 2012 | n/a ⁽¹⁾ |

(1) Designed to meet 47 ppm,d @15% O₂ CO limit or reduce CO emissions by 93% pursuant to 40 CFR 63, Subpart ZZZZ.

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit ~~supercedes~~supersedes and replaces R13-~~2839A issued on February 28, 2011 and R13-2324B issued on November 20, 2001~~September 17, 2012. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Applications R13-2839, R13-2839A, R13-2839B, R13-2839C and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 4. Emission control equipment; and
 5. Fuel used.
[40CFR§60.4245(c)]
- d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

10.0. Source-Specific Requirements (Compressor Engine, 01-004)

10.1. Limitations and Standards

- 10.1.1 Emissions to the atmosphere for the 1,085150 HP Caterpillar Engine, Model G3516, Source ID 001-04, Emission Point ID EN04, shall not exceed the following amounts:

Table 10.1.1.: Compressor Engine Emission Limits

| Pollutant | lb/hr | ton/year |
|-------------------|--------|----------|
| CO ⁽¹⁾ | 0.50 | 2.19 |
| NO _x | 3.80 | 16.6066 |
| PM ⁽²⁾ | 0.0809 | 0.3537 |
| SO ₂ | 0.01 | 0.02 |
| VOC | 1.2724 | 5.6044 |

- (1) As of the issuance date of this permit, WVDEP has not taken delegation of Subpart ZZZZ. However, the permittee voluntarily submitted a permit application to install an oxidation catalyst to meet the requirements of Subpart ZZZZ. The CO emission limit reflects the use of this oxidation catalyst pursuant to the permit application.
- (2) All particulate matter emissions are assumed to be PM_{2.5} or less.

- 10.1.2 Compliance with the emission limits under Table 10.1 shall be in accordance with the following requirements:

- a. The engine identified as 001-04 shall be the make and model as listed under Table 1.0 of this permit;
- b. As the annual emissions are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis;
- c. At all times engine 001-04 is in operation an oxidation catalyst shall be used to control emissions of CO; and
- d. Compliance with the CO limit shall be determined by compliance with all applicable requirements of 40 CFR 63, Subpart ZZZZ.

10.2. Monitoring Requirements

- 10.2.1. The permittee shall meet all applicable monitoring requirements in 40 CFR 63, Subpart ZZZZ.

10.3. Performance Testing Requirements