**Dominion Resources Services, Inc.** 5000 Dominion Boulevard, Glen Allen, VA 23060

dom.com

January 8, 2016



#### BY: U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED

9590 9401 0037 5168 3632 29

William F. Durham
Director, Division of Air Quality
WVDEP
601 57<sup>th</sup> Street
Charleston, WV 25304

RE:

Dominion Transmission, Inc.

Hastings Compressor Station (ID# 103-00006)

R13 Class I Administrative Update (Permit No. R13-3249)

Dear Mr. Durham,

Enclosed are one complete original and two (2) cd copies of a 45 CSR 13 Class I Administrative Update permit application for a request to include AUX06 (Generac QT080 natural gas emergency generator) and all related requirements from Dominion Transmission, Inc.'s (DTI) Mockingbird Hill Compressor Station R13 permit (R13-2555B) to DTI's Hastings Compressor Station R13 permit (R13-3249). The emergency generator is actually located at DTI's Hastings Compressor Station, as stated per the original application submitted 6/5/12. A Class I Administrative Update will also be submitted to WVDEP to request the removal of AUX06 and all related requirements from the R13 permit (R13-2555B) for DTI's Mockingbird Hill Compressor Station.

Currently, the Hastings Compressor Station, Mockingbird Hill Compressor Station, and Lewis Wetzel Compressor Station are under one Title V permit (R30-10300006-2011). The enclosed application also includes the Title V Operating Permit revision forms for the Title V permit.

No application fee is needed for this R13 application since it is a Class I Administrative Update.

If you have any questions regarding this application, please feel free to contact Rebekah Remick at (804) 273-3536 or Rebekah.J.Remick@dom.com.

Sincerely,

Amanda B. Tornabene

Director, Gas Environmental Services

# APPLICATION FOR R13 PERMIT CLASS I ADMINISTRATIVE UPDATE

Dominion Transmission, Inc. Hastings Compressor Station Station ID# 103-00006

January 2016

# DOMINION TRANSMISSION, INC. HASTINGS COMPRESSOR STATION

#### CLASS I ADMINISTRATIVE UPDATE

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Application for Permit to Construct, Modify, Relocate or Administratively Update a Stationary Source of Air Pollutants

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Attachment L: Emissions Unit Data Sheet

Attachment N: Supporting Emission Calculations

Attachment S: Title V Permit Revision Information

<sup>\*\*</sup>Note: There are no Attachments B, C, F, H-K, M, O-R for this permit application per WVDEP correspondence.

#### WEST VIRGINIA DEPARTMENT OF **ENVIRONMENTAL PROTECTION**

#### **DIVISION OF AIR QUALITY**

# APPLICATION FOR NSR PERMIT AND

| 601 57 <sup>th</sup> Street, SE<br>Charleston, WV 25304<br>(304) 926-0475<br>www.dep.wv.gov/dag   | TITLE V PERMIT REVISION (OPTIONAL)   |  |  |  |
|---|--|--|--|--|
| PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN)  CONSTRUCTION MODIFICATION RELOCATION  CLASS I ADMINISTRATIVE UPDATE TEMPORARY  CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT   | PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):  ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION  IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION |  |  |  |
| (Appendix A, "Title V Permit Revision Flowchart") and ability   | ion Guidance" in order to determine your Title V Revision options to operate with the changes requested in this Permit Application.  |  |  |  |
|   | I. General   |  |  |  |
| <ol> <li>Name of applicant (as registered with the WV Secretary of S<br/>Dominion Transmission, Inc.</li> </ol>   | State's Office):  2. Federal Employer ID No. (FEIN):  550629203  |  |  |  |
| Name of facility (if different from above):   | 4. The applicant is the:   |  |  |  |
| Hastings Compressor Station   | ☐ OWNER ☐ OPERATOR ☑ BOTH  |  |  |  |
| Currently, the Hastings Compressor Station Title V permit aggregates the emissions from the Hastings Compressor Station, Mockingbird Hill Compressor Station, and the Lewis Wetzel Compressor Station. This permit application is for a Class I Administrative Update proposed at the Hastings Compressor Station.  |  |  |  |  |
| 5A. Applicant's mailing address: 925 White Oaks Blvd. Bridgeport, WV 26330  | 5B. Facility's present physical address: P.O. Box 450, Route 20 Pine Grove, WV 26419   |  |  |  |
| 6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia?  YES  NO  If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A.  If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A. |  |  |  |  |
| 7. If applicant is a subsidiary corporation, please provide the na  | me of parent corporation:  |  |  |  |
| 8. Does the applicant own, lease, have an option to buy or other  | rwise have control of the proposed site? XYES NO   |  |  |  |
| - If <b>YES</b> , please explain: Own   |  |  |  |  |
| <ul> <li>If NO, you are not eligible for a permit for this source.</li> </ul>   |  |  |  |  |
| <ol> <li>Type of plant or facility (stationary source) to be constructe<br/>administratively updated or temporarily permitted (e.g.,<br/>crusher, etc.): Natural gas compressor station</li> </ol>  |  |  |  |  |

| 11A. DAQ Plant ID No. (for existing facilities only): 103-00006  | 11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-2555B and R13-3249 R30-10300006-2011 |   |  |  |
|--|--|---|--|--|
| All of the required forms and additional information can be  | found under the Permitting Section of DA   | AQ's website, or requested by phone.                          |  |  |
| 12A.   |  |   |  |  |
| <ul> <li>For Modifications, Administrative Updates or Te<br/>present location of the facility from the nearest state</li> </ul>  |  | please provide directions to the                              |  |  |
| <ul> <li>For Construction or Relocation permits, please proad. Include a MAP as Attachment B.</li> </ul>   | provide directions to the <i>proposed new</i> s  | ite location from the nearest state                           |  |  |
| From Clarksburg, take Route 20 North for 37 miles  | to Hastings. The Station entrance is or  | the left side of the road.                                    |  |  |
| 12.B. New site address (if applicable):  | 12C. Nearest city or town:   | 12D. County:  |  |  |
|  | Pine Grove   | Wetzel  |  |  |
| 12.E. UTM Northing (KM): 4377.66   | 12F. UTM Easting (KM): 528.64  | 12G. UTM Zone: 17   |  |  |
| 13. Briefly describe the proposed change(s) at the facilit Removing AUX06 from the Mockingbird Hill Compre Compressor Station (per our application submitted 6   | ssor Station R13 permit as AUX06 is ac   | tually located at Hastings                                    |  |  |
| Provide the date of anticipated installation or change.      If this is an <b>After-The-Fact</b> permit application, provident of the providence of the prov |  | 14B. Date of anticipated Start-Up if a permit is granted: N/A |  |  |
| 14C. Provide a <b>Schedule</b> of the planned <b>Installation</b> of/application as <b>Attachment C</b> (if more than one uni  | <del>-</del>   | units proposed in this permit                                 |  |  |
| 15. Provide maximum projected <b>Operating Schedule</b> o Hours Per Day 24 Days Per Week 7   | f activity/activities outlined in this applica<br>Weeks Per Year 3 (500 hrs/yr)  | ation:  |  |  |
| 16. Is demolition or physical renovation at an existing fac-   | cility involved?   |   |  |  |
| 17. Risk Management Plans. If this facility is subject to  | 112(r) of the 1990 CAAA, or will become  | e subject due to proposed                                     |  |  |
| changes (for applicability help see www.epa.gov/cepp   | oo), submit your <b>Risk Management Pla</b>  | n (RMP) to U. S. EPA Region III.                              |  |  |
| 18. Regulatory Discussion. List all Federal and State a  | air pollution control regulations that you   | believe are applicable to the                                 |  |  |
| proposed process (if known). A list of possible applica-   | able requirements is also included in Atta   | achment S of this application                                 |  |  |
| (Title V Permit Revision Information). Discuss applica   | bility and proposed demonstration(s) of  | compliance (if known). Provide this                           |  |  |
| information as <b>Attachment D.</b>  |  |   |  |  |
| Section II. Additional att   | achments and supporting de   | ocuments.   |  |  |
| <ol> <li>Include a check payable to WVDEP – Division of Air<br/>45CSR13).</li> </ol>   | Quality with the appropriate application   | fee (per 45CSR22 and  |  |  |
| 20. Include a <b>Table of Contents</b> as the first page of you  | ur application package   |   |  |  |
| 21. Provide a <b>Plot Plan</b> , e.g. scaled map(s) and/or skete source(s) is or is to be located as <b>Attachment E</b> (Re   | ch(es) showing the location of the prope   | rty on which the stationary                                   |  |  |
| <ul> <li>Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).</li> </ul>  |  |   |  |  |
| 22. Provide a <b>Detailed Process Flow Diagram(s)</b> show device as <b>Attachment F.</b>  |  |   |  |  |
| 23. Provide a Process Description as Attachment G.   |  |   |  |  |
| <ul> <li>Also describe and quantify to the extent possible a</li> </ul>  | all changes made to the facility since the   | e last permit review (if applicable).                         |  |  |

| All         | of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.   |
|-------------|---|
| 24.         | Provide Material Safety Data Sheets (MSDS) for all materials processed, used or produced as Attachment H.   |
| – F         | For chemical processes, provide a MSDS for each compound emitted to the air.  |
| 25.         | Fill out the Emission Units Table and provide it as Attachment I.   |
| 26.         | Fill out the Emission Points Data Summary Sheet (Table 1 and Table 2) and provide it as Attachment J.   |
| 27.         | Fill out the Fugitive Emissions Data Summary Sheet and provide it as Attachment K.  |
| 28.         | Check all applicable Emissions Unit Data Sheets listed below:   |
|             | Bulk Liquid Transfer Operations   |
|             | Chemical Processes  |
|             | Concrete Batch Plant  |
|             | Grey Iron and Steel Foundry   |
| $\boxtimes$ | General Emission Unit, specify Emergency Generator  |
| Fill        | out and provide the Emissions Unit Data Sheet(s) as Attachment L.   |
|             | Check all applicable Air Pollution Control Device Sheets listed below:  |
|             | Absorption Systems  |
|             | Adsorption Systems  |
|             | Afterburner   |
|             | Other Collectors, specify   |
|             |   |
| Fill        | out and provide the Air Pollution Control Device Sheet(s) as Attachment M.  |
| 30.         | Provide all <b>Supporting Emissions Calculations</b> as <b>Attachment N</b> , or attach the calculations directly to the forms listed in Items 28 through 31.   |
| 31.         | <b>Monitoring, Recordkeeping, Reporting and Testing Plans.</b> Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as <b>Attachment O</b> .                                      |
| <b>A</b>    | Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.               |
| 32.         | Public Notice. At the time that the application is submitted, place a Class I Legal Advertisement in a newspaper of general   |
|             | circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and <i>Example Legal</i>  |
|             | Advertisement for details). Please submit the Affidavit of Publication as Attachment P immediately upon receipt.  |
| 33.         | Business Confidentiality Claims. Does this application include confidential information (per 45CSR31)?  |
|             | ☐ YES ⊠ NO  |
| <b>A</b>    | If YES, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "Precautionary Notice – Claims of Confidentiality" guidance found in the General Instructions as Attachment Q. |
|             | Section III. Certification of Information   |
| 34.         | <b>Authority/Delegation of Authority.</b> Only required when someone other than the responsible official signs the application. Check applicable <b>Authority Form</b> below:   |
|             | Authority of Corporation or Other Business Entity   |
|             | Authority of Governmental Agency  |
| Sub         | mit completed and signed Authority Form as Attachment R.  |
| AII         | of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.   |
|             |   |

| 35A. <b>Certification of Information.</b> To certify 2.28) or Authorized Representative shall check   | this permit application, a Responsible Offic<br>the appropriate box and sign below.  | ial (per 45CSR§13-2.22 and 45CSR§30-  |  |  |
|---|--|---|--|--|
| Certification of Truth, Accuracy, and Comp  | leteness   |   |  |  |
| I, the undersigned Responsible Official / Authorized Representative, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change. |  |   |  |  |
| Compliance Certification  Except for requirements identified in the Title V that, based on information and belief formed at compliance with all applicable requirements.  | Application for which compliance is not acter reasonable inquiry, all air contaminant s  | hieved, I, the undersigned hereby certify sources identified in this application are in |  |  |
| SIGNATURE 73  | use blue ink)  | DATE: 01/04/2016 (Please use blue ink)  |  |  |
| 35B. Printed name of signee: Brian Sheppard   | ise blue liny  | 35C. Title: Vice President, Pipeline Operations   |  |  |
| 35D. E-mail: Brian.C.Sheppard@dom.com   | 36E. Phone: (681) 842-3733   | <b>36F. FAX:</b> (681) 842-3323   |  |  |
| 36A. Printed name of contact person (if differe   | 36A. Printed name of contact person (if different from above): Rebekah Remick  36B. Title: Environmental Consultant  |   |  |  |
| 36C. E-mail: Rebekah.J.Remick@dom.com   | 36D. Phone: 804-273-3536   | 36E. FAX: 804-273-2964  |  |  |
|   |  |   |  |  |
| PLEASE CHECK ALL APPLICABLE ATTACHMEN   | TS INCLUDED WITH THIS PERMIT APPLICAT  | ION:  |  |  |
| PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:  Attachment A: Business Certificate Attachment B: Map(s) Attachment C: Installation and Start Up Schedule Attachment D: Regulatory Discussion Attachment E: Plot Plan Attachment E: Plot Plan Attachment F: Detailed Process Flow Diagram(s) Attachment G: Process Description Attachment H: Material Safety Data Sheets (MSDS) Attachment I: Emission Units Table Attachment I: Emission Points Data Summary Sheet  Please mail an original and three (3) copies of the complete permit application. Please DO NOT fax permit applications.   |  |   |  |  |
|   |  |   |  |  |
| FOR AGENCY USE ONLY – IF THIS IS A TITLE V  Forward 1 copy of the application to the Title For Title V Administrative Amendments: NSR permit writer should notify Title v  For Title V Minor Modifications: Title V permit writer should send application NSR permit writer should notify Title v  For Title V Significant Modifications processes NSR permit writer should notify a Title v  Public notice should reference both 4 EPA has 45 day review period of a drawn of the required forms and additional information.   | V Permitting Group and: V permit writer of draft permit, Topriate notification to EPA and affected state V permit writer of draft permit. The din parallel with NSR Permit revision: To V permit writer of draft permit, Tournal and Title V permits, To the permit. |   |  |  |
| All of the required forms and additional informat   | ion can be round under the Fernillung Section  | ir or brig o mobolito, or requestion by priorie.  |  |  |

# **Attachment A**

**Current Business Certificate** 

# WEST VIRGINIA STATE TAX DEPARTMENT BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:

DOMINION TRANSMISSION INC

445 W MAIN ST

CLARKSBURG, WV 26301-2843

BUSINESS REGISTRATION ACCOUNT NUMBER:

1038-3470

This certificate is issued on:

06/8/2011

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and injustible displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4 L0228957312

# **Attachment D**

**Regulatory Discussion** 

#### REGULATORY DISCUSSION

This section provides an air quality regulatory review of the proposed Class I Administrative Update to Hastings Compressor Station.

- New Source Performance Standards (NSPS) (40 CFR 60)
- National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63)
- West Virginia Minor Source Permitting (WV Regulation 13)

#### **NSPS Subpart JJJJ**

The Generac engine is subject to the requirements contained in 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (Subpart JJJJ) since the engine commenced construction after June 12, 2006, and the engine has been manufactured on or after January 1, 2009 for emergency engines with maximum engine power greater than 25 hp but less than 130 hp. The engine is considered certified. Below is a summary of the requirements contained in Subpart JJJJ as they pertain to the Generac engine:

- Engine Limits (Manufacturer Date after January 1, 2009 (60.4233(e))
  - o NOx = 2.0 g/hp-hr (Emission Standard is in terms of NOx + VOC)
  - $\circ$  CO = 387 g/hp-hr
- Monitoring Requirements If the engine is built on or after July 1, 2010 and does not meet the standards applicable to non-emergency engines, must install and maintain a non-resettable hour meter to monitor and record the hours of operation of the engine (60.4237(a)).
- Testing Requirements None. Dominion has purchased a certified engine in accordance with the rule (60.4243(b)(1)).
- Maintenance checks and readiness testing of the engine is limited to no more than 100 hrs/yr. There is no time limit on the use of the emergency SI ICE in emergency situations (60.4243(d)).
- Recordkeeping Requirements
  - o Records of conducted maintenance (60.4243(a)(1) and 60.4245(a)(2))
  - o Records from manufacturer that the engine is certified (60.4245(a)(3))
  - Records from the non-resettable hour meter of the hours of operation of the engine (60.4245(b))
- Reporting Requirements None

#### **NESHAP Subpart ZZZZ**

The Generac engine is subject to the requirements contained in 40 CFR Part 63, Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)* (Subpart ZZZZ) since the facility owns/operates the stationary RICE. For the purpose of determining the applicability to this rule, at the time the Generac engine was installed, the Hastings Compressor Station was considered to be a major source of HAP. The engine is then considered a new source at a major source of HAP since the construction of the engine commenced after June 12, 2006.

There are no specific requirements under Subpart ZZZZ for this engine. Per 63.6590(c)(1), new stationary engines located at a major source of HAP must meet the requirements of Subpart

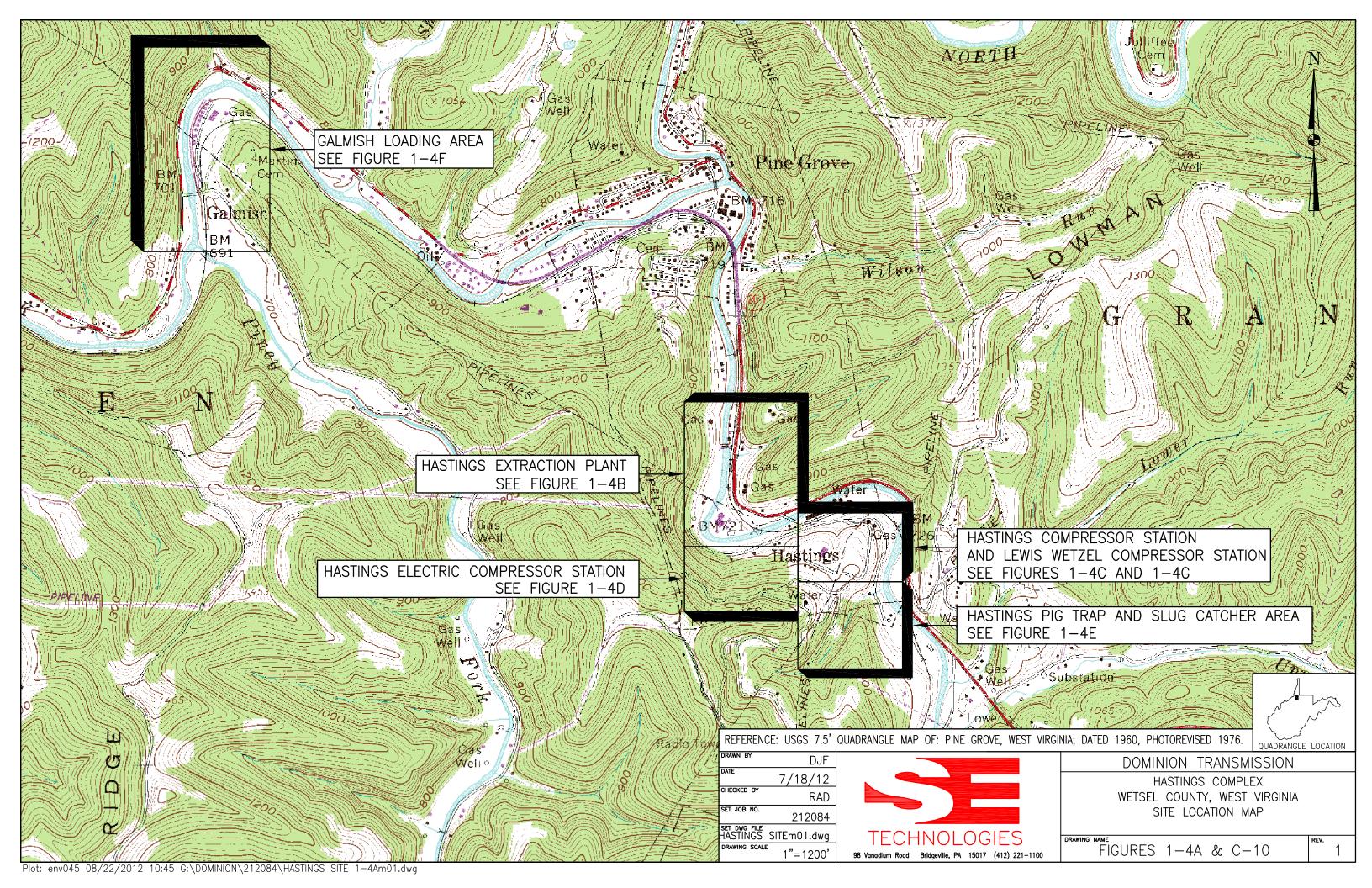
ZZZZ by meeting the requirements in 40 CFR Part 60, Subpart JJJJ. No further requirements in Subpart ZZZZ apply.

#### West Virginia Minor Source Regulations (R13)

The inclusion of the Generac engine is considered a Class I Administrative Update in accordance with R13 regulations since it is be a correction of a typographical error as stated in 45-13-4.2.a.1. No emission changes are associated with this permit action as they are already accounted for in the Mockingbird Hill Compressor Station R13 permit.

## **Attachment E**

Plot Plan



# **Attachment G**

**Process Description** 

#### PROCESS DESCRIPTION

Dominion Transmission Inc. (DTI) is submitting this Class I Administrative Update permit application for a request to include an emergency generator (AUX06) and all related requirements from DTI's Mockingbird Hill Compressor Station R13 permit (R13-2555B) to DTI's Hastings Compressor Station R13 permit (R13-3249). The emergency generator is actually located at DTI's Hastings Compressor Station, as stated per the original application submitted 6/5/12.

The emergency generator is a Generac QT080 and is considered a certified engine conforming to the standards in 40 CFR Part 60 Subpart JJJJ. The engine is rated at 128 hp and is a 4-stroke, lean burn engine. The generator set is considered an emergency unit and operation is limited to 500 hrs/yr.

## **Attachment L**

**Emissions Unit Data Sheet** 

# Attachment L EMISSIONS UNIT DATA SHEET GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on Equipment List Form): AUX06

| Name or type and model of proposed affected source:  |
|--|
| One (1) auxiliary generator - Generac QT080, 128 hp  |
|  |
| <ol> <li>On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be<br/>made to this source, clearly indicated the change(s). Provide a narrative description of a<br/>features of the affected source which may affect the production of air pollutants.</li> </ol> |
| 3. Name(s) and maximum amount of proposed process material(s) charged per hour:  |
|  |
| Natural gas consumption ~ 1,154 cf/hr  |
|  |
| 4. Name(s) and maximum amount of proposed material(s) produced per hour:   |
|  |
|  |
|  |
|  |
|  |
| 5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants   |
|  |
|  |
|  |
|  |
|  |

\* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

| 6. | Combustion Data (if applicable):      |  |                     |                   |                |                           |
|----|---------------------------------------|--|---------------------|-------------------|----------------|---------------------------|
|    | (a)                                   | a) Type and amount in appropriate units of fuel(s) to be burned: |                     |                   |                |                           |
| N  | Natural gas consumption ~ 1,154 cf/hr |  |                     |                   |                |                           |
|    | (b)                                   | Chemical analysis of prand ash:                                  | roposed fuel(s), ex | cluding coal, in  | cluding maxim  | um percent sulfur         |
|    |                                       |  |                     |                   |                |                           |
|    | (c)                                   | Theoretical combustion   | air requirement (A  | ACF/unit of fue   | l):            |                           |
|    |                                       | @  |                     | °F and            |                | psia.                     |
|    | (d)                                   | Percent excess air:  |                     |                   |                |                           |
|    | (e)                                   | Type and BTU/hr of bu  | rners and all other | firing equipme    | ent planned to | be used:                  |
|    |                                       |  |                     |                   |                |                           |
|    |                                       |  |                     |                   |                |                           |
|    |                                       |  |                     |                   |                |                           |
|    | /f\                                   | If coal is proposed as a   | source of fuel ide  | entify cumplion o | and coams and  | give sizing of the        |
|    | (1)                                   | coal as it will be fired:  | Source of fuer, fue | ining supplier a  | ina seams and  | give sizing of the        |
|    |                                       |  |                     |                   |                |                           |
|    |                                       |  |                     |                   |                |                           |
|    |                                       |  |                     |                   |                |                           |
|    |                                       |  |                     |                   |                |                           |
|    | (g)                                   | Proposed maximum de  | sign heat input:    |                   |                | × 10 <sup>6</sup> BTU/hr. |
| 7. | Pro                                   | jected operating sched   | ule:                | İ                 |                |                           |
| Ho | urs/l                                 | Day 24   | Days/Week           | 7                 | Weeks/Year     | 3 (500 hrs/yr)            |

| 8. | Projected amount of polluta devices were used: | ants that would be | emitted fro | m this affected source if no control |
|----|--|--------------------|-------------|--------------------------------------|
| @  |  | °F and             | t           | psia                                 |
| a. | NO <sub>X</sub>                                | 1.14               | lb/hr       | grains/ACF                           |
| b. | SO <sub>2</sub>                                | < 0.01             | lb/hr       | grains/ACF                           |
| c. | СО   | 20.57              | lb/hr       | grains/ACF                           |
| d. | PM <sub>10</sub>                               | < 0.01             | lb/hr       | grains/ACF                           |
| e. | Hydrocarbons                                   |                    | lb/hr       | grains/ACF                           |
| f. | VOCs   | 0.39               | lb/hr       | grains/ACF                           |
| g. | Pb   |                    | lb/hr       | grains/ACF                           |
| h. | Specify other(s)                               |                    | I           |                                      |
|    | Negligible, Refer to<br>Attachment N           |                    | lb/hr       | grains/ACF                           |
|    |  |                    | lb/hr       | grains/ACF                           |
|    |  |                    | lb/hr       | grains/ACF                           |
|    |  |                    | lb/hr       | grains/ACF                           |

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits. **MONITORING** RECORDKEEPING Refer to Regulatory Discussion in Attachment D for a Refer to Regulatory Discussion in Attachment D for a description of all monitoring, testing, recordkeeping, and description of all monitoring, testing, recordkeeping, and reporting requirements. reporting requirements. REPORTING **TESTING** Refer to Regulatory Discussion in Attachment D for a Refer to Regulatory Discussion in Attachment D for a description of all monitoring, testing, recordkeeping, and description of all monitoring, testing, recordkeeping, and reporting requirements. reporting requirements. MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE. RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING. REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING. TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE. 10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

# **Attachment N**

**Supporting Emission Calculations** 

Auxiliary Generator (AUX06) Potential Emissions

Dominion Transmission, Inc.

Hastings Compressor Station

Input Data: Generac QT080
Design Class: 4-stroke lean burn

Engine Power: 128.0 hp (Manufacturer Specs)

Fuel Input: 1.18 MMBtu/hr Maximum Hours of Operation: 8,760 hrs/yr

500 hrs/yr

Updated: Dec 2015

Fuel Throughput: 1,154 cf/hr (Manufacturer Specs)

0.58 MMcf/yr Heating Value of Natural Gas: 1,020 Btu/cf

#### **Emission Calculations**

| Pollutant                 | Emission        | Factor   | Emis     | sions (8760 hı | rs/yr)    | Emis     | sions (500 h | rs/yr)    |
|---------------------------|-----------------|----------|----------|----------------|-----------|----------|--------------|-----------|
| Pollutarit                | Emission Factor |          | (lb/hr)  | (lbs/day)      | (tons/yr) | (lb/hr)  | (lbs/day)    | (tons/yr) |
| Criteria Pollutants       |                 |          |          |                |           |          |              |           |
| PM (filterable)           | 7.71E-05        | lb/MMBtu | 9.08E-05 | 0.00           | 0.00      | 9.08E-05 | 0.00         | 2.27E-05  |
| PM-10 (filterable)        | 7.71E-05        | lb/MMBtu | 9.08E-05 | 0.00           | 0.00      | 9.08E-05 | 0.00         | 2.27E-05  |
| PM-2.5 (filterable)       | 7.71E-05        | lb/MMBtu | 9.08E-05 | 0.00           | 0.00      | 9.08E-05 | 0.00         | 2.27E-05  |
| PM (condensibles)         | 9.91E-03        | lb/MMBtu | 1.17E-02 | 0.28           | 0.05      | 1.17E-02 | 0.28         | 2.92E-03  |
| SO2                       | 5.88E-04        | lb/MMBtu | 6.92E-04 | 0.02           | 3.03E-03  | 6.92E-04 | 0.02         | 1.73E-04  |
| со                        | 72.91           | g/hp-hr  | 20.57    | 493.79         | 90.12     | 20.57    | 493.79       | 5.14      |
| NO <sub>X</sub>           | 4.04            | g/hp-hr  | 1.14     | 27.36          | 4.99      | 1.14     | 27.36        | 0.29      |
| VOC                       | 1.39            | g/hp-hr  | 0.39     | 9.41           | 1.72      | 0.39     | 9.41         | 0.10      |
| Greenhouse Gases          |                 |          |          |                |           |          |              |           |
| CO <sub>2</sub>           | 117.0           | lb/MMBtu | 137.69   |                | 603.09    | 137.69   |              | 34.42     |
| CH₄                       | 2.20E-03        | lb/MMBtu | 0.00     |                | 0.01      | 0.00     |              | 0.00      |
| N <sub>2</sub> O          | 2.20E-04        | lb/MMBtu | 0.00     |                | 0.00      | 0.00     |              | 0.00      |
| CO <sub>2</sub> e         | 117.1           | lb/MMBtu | 137.83   |                | 603.71    | 137.83   |              | 34.46     |
| Hazardous Air Pollutants  |                 |          |          |                |           |          |              |           |
| 1,1,2,2-Tetrachloroethane | 4.00E-05        | lb/MMBtu | 4.71E-05 |                | 2.06E-04  | 4.71E-05 |              | 1.18E-05  |
| 1,1,2-Trichloroethane     | 3.18E-05        | lb/MMBtu | 3.74E-05 |                | 1.64E-04  | 3.74E-05 |              | 9.36E-06  |
| 1,1-Dichloroethane        | 2.36E-05        | lb/MMBtu | 2.78E-05 |                | 1.22E-04  | 2.78E-05 |              | 6.94E-06  |
| 1,2-Dichloroethane        | 2.36E-05        | lb/MMBtu | 2.78E-05 |                | 1.22E-04  | 2.78E-05 |              | 6.94E-06  |
| 1,3-Butadiene             | 2.67E-04        | lb/MMBtu | 3.14E-04 |                | 1.38E-03  | 3.14E-04 |              | 7.86E-05  |
| 1,3-Dichloropropene       | 2.64E-05        | lb/MMBtu | 3.11E-05 |                | 1.36E-04  | 3.11E-05 |              | 7.77E-06  |
| Acetaldehyde              | 8.36E-03        | lb/MMBtu | 9.84E-03 |                | 4.31E-02  | 9.84E-03 |              | 2.46E-03  |
| Acrolein                  | 5.14E-03        | lb/MMBtu | 6.05E-03 |                | 2.65E-02  | 6.05E-03 |              | 1.51E-03  |
| Benzene                   | 4.40E-04        | lb/MMBtu | 5.18E-04 |                | 2.27E-03  | 5.18E-04 |              | 1.29E-04  |
| Biphenyl                  | 2.12E-04        | lb/MMBtu | 2.50E-04 |                | 1.09E-03  | 2.50E-04 |              | 6.24E-05  |
| Carbon Tetrachloride      | 3.67E-05        | lb/MMBtu | 4.32E-05 |                | 1.89E-04  | 4.32E-05 |              | 1.08E-05  |
| Chlorobenzene             | 3.04E-05        | lb/MMBtu | 3.58E-05 |                | 1.57E-04  | 3.58E-05 |              | 8.95E-06  |
| Chloroform                | 2.85E-05        | lb/MMBtu | 3.35E-05 |                | 1.47E-04  | 3.35E-05 |              | 8.39E-06  |
| Ethylbenzene              | 3.97E-05        | lb/MMBtu | 4.67E-05 |                | 2.05E-04  | 4.67E-05 |              | 1.17E-05  |
| Ethylene Dibromide        | 4.43E-05        | lb/MMBtu | 5.21E-05 |                | 2.28E-04  | 5.21E-05 |              | 1.30E-05  |
| Formaldehyde              | 5.28E-02        | lb/MMBtu | 6.21E-02 |                | 2.72E-01  | 6.21E-02 |              | 1.55E-02  |
| Hexane                    | 1.11E-03        | lb/MMBtu | 1.31E-03 |                | 5.72E-03  | 1.31E-03 |              | 3.27E-04  |
| Methanol                  | 2.50E-03        | lb/MMBtu | 2.94E-03 |                | 1.29E-02  | 2.94E-03 |              | 7.36E-04  |
| Methylene Chloride        | 2.00E-05        | lb/MMBtu | 2.35E-05 |                | 1.03E-04  | 2.35E-05 |              | 5.89E-06  |
| Naphthalene (POM)         | 7.44E-05        | lb/MMBtu | 8.76E-05 |                | 3.84E-04  | 8.76E-05 |              | 2.19E-05  |
| Phenol                    | 2.40E-05        | lb/MMBtu | 2.82E-05 |                | 1.24E-04  | 2.82E-05 |              | 7.06E-06  |
| Styrene                   | 2.36E-05        | lb/MMBtu | 2.78E-05 |                | 1.22E-04  | 2.78E-05 |              | 6.94E-06  |
| Toluene                   | 4.08E-04        | lb/MMBtu | 4.80E-04 |                | 2.10E-03  | 4.80E-04 |              | 1.20E-04  |
| Vinyl Chloride            | 1.49E-05        | lb/MMBtu | 1.75E-05 |                | 7.68E-05  | 1.75E-05 |              | 4.38E-06  |
| Xylene                    | 1.84E-04        | lb/MMBtu | 2.17E-04 |                | 9.49E-04  | 2.17E-04 |              | 5.41E-05  |
| TOTAL HAP:                |                 |          | 0.08     |                | 0.37      | 0.08     |              | 0.02      |

<sup>(1)</sup> CO, NOx, and VOC emission rates based on manufacturer specs.

For example:  $CO_2 = (53.06 \text{ kg } CO_2/\text{MMBtu}) / (0.453592 \text{ kg/lb}) = 117.0 \text{ lb/MMBtu}$ 

(4) Global Warming Potentials = 25 for  $CH_4$  and 298 for  $N_2O$  (per 40 CFR Part 98 Table A-1 to Subpart A)

For example:  $CO_2e = (117.0 \text{ lb/MMBtu}) + (0.0022 \text{ lb/MMBtu} * 25) + (0.00022 \text{ lb/MMBtu} * 298) = 117.1 \text{ lb/MMBtu}$ 

<sup>(2)</sup> PM10, PM2.5, SO2, and HAP emission factors based on AP-42 Section 3.2, Table 3.2-2.

<sup>(3)</sup> GHG numbers based on 40 CFR Part 98 Tables C-1 and C-2 for natural gas

## **Attachment S**

Title V Permit Revision Information

#### **Attachment S**

#### **Title V Permit Revision Information**

| 1. New Applicable Requirements Summary  |   |  |  |
|---|---|--|--|
| Mark all applicable requirements associated with the changes involved with this permit revision:  |   |  |  |
| □ SIP   | ☐ FIP   |  |  |
| Minor source NSR (45CSR13)  | ☐ PSD (45CSR14)   |  |  |
| ☐ NESHAP (45CSR15)  | Nonattainment NSR (45CSR19)                             |  |  |
| Section 111 NSPS     (Subpart(s) JJJJ)  | Section 112(d) MACT standards     (Subpart(s) ZZZZ)     |  |  |
| Section 112(g) Case-by-case MACT  | ☐ 112(r) RMP  |  |  |
| Section 112(i) Early reduction of HAP   | Consumer/commercial prod. reqts., section 183(e)        |  |  |
| Section 129 Standards/Reqts.  | Stratospheric ozone (Title VI)                          |  |  |
| Tank vessel reqt., section 183(f)   | Emissions cap 45CSR§30-2.6.1                            |  |  |
| NAAQS, increments or visibility (temp. sources)   | 45CSR27 State enforceable only rule                     |  |  |
| 45CSR4 State enforceable only rule  | Acid Rain (Title IV, 45CSR33)                           |  |  |
| Emissions Trading and Banking (45CSR28)   | Compliance Assurance Monitoring (40CFR64) (1)           |  |  |
| □ NO <sub>x</sub> Budget Trading Program Non-EGUs (45CSR1)  | □ NO <sub>x</sub> Budget Trading Program EGUs (45CSR26) |  |  |
| (1) If this box is checked, please include <b>Compliance Assu</b><br>Specific Emission Unit (PSEU) (See Attachment H to Title<br>explain why <b>Compliance Assurance Monitoring</b> is not ap                                     | V Application). If this box is not checked, please      |  |  |
| The emergency generator (AUX06) does not have potential to emit (PTE) calculations over 100 tons/yr and does not have a control device.   |   |  |  |
|   |   |  |  |
| 2. Non Applicability Determinations   |   |  |  |
| List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination. |   |  |  |
|   |   |  |  |
| ☐ Permit Shield Requested (not applicable to Minor Modifications)   |   |  |  |

| All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone. |  |  |  |
|---|--|--|--|
| 3. Suggested Title V Draft Permit La  | nguage   |  |  |
|   | ith this Title V Permit revise, describe the changes below   | sion outside of the scope of the NSR Permit  |  |
| (including all applicable requirem /recordkeeping/ reporting requiren   | ents associated with the penents), OR attach a marked nit or Consent Order numbe   | age for the proposed Title V Permit revision rmit revision and any associated monitoring up pages of current Title V Permit. Please r, condition number and/or rule citation (e.g. |  |
| Please copy/paste already existing p<br>the Hastings Compressor Station se  |  | Mockingbird Hill Compressor Station section to   |  |
| • Conditions 7.1.9, 7.1.10,   | 7.1.11, 7.2.1, 7.2.2, 7.3.5, 7.  | 4.2, 7.5.3   |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| 4. Active NSR Permits/Permit Deter  | minations/Consent Orders   | Associated With This Permit Revision   |  |
| 4. Active NSR Permits/Permit Deter Permit or Consent Order Number   | minations/Consent Orders  Date of Issuance   | Associated With This Permit Revision  Permit/Consent Order Condition Number  |  |
|   |  | I  |  |
| Permit or Consent Order Number  | Date of Issuance   | I  |  |
| Permit or Consent Order Number R13-3249   | Date of Issuance<br>10/13/2015   | I  |  |
| Permit or Consent Order Number R13-3249 R13-2555B   | Date of Issuance<br>10/13/2015<br>9/17/2012  | I  |  |
| Permit or Consent Order Number  R13-3249  R13-2555B  R30-10300006-2011  | Date of Issuance  10/13/2015  9/17/2012  11/27/2012 (SM01)   | I  |  |
| Permit or Consent Order Number  R13-3249  R13-2555B  R30-10300006-2011  | Date of Issuance  10/13/2015  9/17/2012  11/27/2012 (SM01)   | Permit/Consent Order Condition Number  |  |
| Permit or Consent Order Number R13-3249 R13-2555B R30-10300006-2011  5. Inactive NSR Permits/Obsolete Permits                           | Date of Issuance 10/13/2015 9/17/2012 11/27/2012 (SM01)  ermit or Consent Orders Consent Order Consent Or | Permit/Consent Order Condition Number  onditions Associated With This Revision   |  |
| Permit or Consent Order Number R13-3249 R13-2555B R30-10300006-2011  5. Inactive NSR Permits/Obsolete Permit or Consent Order Number    | Date of Issuance 10/13/2015 9/17/2012 11/27/2012 (SM01)  ermit or Consent Orders Consent Order Consent Or | Permit/Consent Order Condition Number  onditions Associated With This Revision   |  |
| Permit or Consent Order Number R13-3249 R13-2555B R30-10300006-2011  5. Inactive NSR Permits/Obsolete Permit or Consent Order Number    | Date of Issuance 10/13/2015 9/17/2012 11/27/2012 (SM01)  ermit or Consent Orders Consent Order Consent Or | Permit/Consent Order Condition Number  onditions Associated With This Revision   |  |

| 6. Change in Potential Emissions |   |
|----------------------------------|---|
| Pollutant                        | Change in Potential Emissions (+ or -), TPY |
| СО                               | + 5.14                                      |
| NOx                              | + 0.29                                      |
| VOC                              | + 0.10                                      |
| PM, PM-10, PM 2.5                | + < 0.01 each                               |

\*\*Note: The increases are already accounted for in the Title V permit under the Mockingbird Hill Compressor section. This application is just to move AUX06 and related requirements to the Hastings Compressor Station section.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

| 7.                   | Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)   |
|----------------------|--|
| Note                 | e: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:   |
| proc<br>perr<br>proc | <ol> <li>i. Proposed changes do not violate any applicable requirement;</li> <li>ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;</li> <li>iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;</li> <li>iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;</li> <li>v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;</li> <li>vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;</li> <li>withstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification bedures may be used for permit modifications involving the use of economic incentives, marketable mits, emissions trading, and other similar approaches, to the extent that such minor permit modification bedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of Stota Leveluse and extends are the Clean Air Act or which never he of the Director which are approved by the U.S. EPA as a part of</li> </ol>   |
|                      | State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V rating permit issued under 45CSR30.   |
| of N                 | rsuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor mit modification procedures are hereby requested for processing of this application.  |
| (Signed              | Date:  (Please use blue ink)  Date: (Please use blue ink)  (Please use blue ink)   |
| Named                | (typed):    Brian Sheppard   Title:   VP Pipeline Operations   VP Pipel |
|                      |  |
| Note: P              | lease check if the following included (if applicable):   |
|                      | Compliance Assurance Monitoring Form(s)  |
|                      | Suggested Title V Draft Permit Language  |
| All of the           | e required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.   |