



# **COMMONWEALTH of VIRGINIA**

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**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Blue Ridge Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Transcontinental Gas Pipe Line Company, LLC  
1950 Chaptico Road - Mecklenburg County, Virginia  
Permit No. BRRO-30860

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, the Williams Companies, Inc. - Transcontinental Gas Pipe Line Company, LLC has applied for a Title V Operating Permit for its Mecklenburg County, VA facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: March 7, 2014  
Dave Skelly  
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Air Permit Manager: \_\_\_\_\_ Date: March 7, 2014  
David J. Brown

Regional Director: \_\_\_\_\_ Date: March 7, 2014  
Robert J. Weld

## **FACILITY INFORMATION**

### Permittee

Transcontinental Gas Pipe Line Company, LLC  
2800 Post Oak Blvd  
Houston, TX 77056

### Facility

Compressor Station #167  
1950 Chaptico Road near South Hill, VA  
Mecklenburg County

County-Plant Identification Number: 51- 117-0050

## **SOURCE DESCRIPTION**

NAICS Code: 486210 - SIC Code 4922 – Transcontinental Gas Pipe Line Company, LLC (Transco) is an interstate natural gas transmission company. Transco's 1,900-mile pipeline system transports natural gas from production areas in the Gulf Coast region to customers along the eastern seaboard. Transco's compressor stations are used to compress and move the gas along the system. Compressor Station #167 is one of twelve facilities which is part of the Charlottesville Division and is a remotely operated station. Compression is made possible through the application of natural gas-fired, turbine-driven compressors. Compressor Station #167 consists of two Solar Centaur T4500 natural gas-fired combustion turbines (Ref. M/L1, M/L2); each rated at  $40.44 \times 10^6$  Btu/hr. The Department issued a permit to construct and operate on October 16, 1990, and operations at the facility began in 1991. The combustion turbines are subject to the provisions of 40 CFR 60 Subpart GG, the NSPS for Stationary Gas Turbines. This facility has the potential to emit 192.4 tons per year of NOx. This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility is currently covered by the permit dated July 16, 2008, and is a Title V major source of NOx. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, Transco is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1. This facility does not produce any other goods or services beyond natural gas compression, and does not include glycol dehydration or natural gas storage. On August 9, 2013, Transco notified the Department of their intent to install a 231 HP (150 kW) natural gas-fired 4 stroke lean burn (4SRB) internal combustion engine (ICE) powered emergency electric generator at Compressor Station #167 before the October 26, 2013 permit expiration date<sup>1</sup>. Compressor Station #167's turbines are in the source category of 9 VAC 5 Chapter 50 Article 5 and 40 CFR 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (see Inapplicable Requirements).

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<sup>1</sup>. The installation date was subsequently moved to after the expiration date of the 10/26/13 Title V permit and then in January 2014. See Transco's December 18, 2013 revised draft permit comments

The emergency electric generator is subject to both 40 CFR 60, Subpart JJJJ, New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines and 40 CFR 63, and Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. The NOx SIP Call Rule (63 FR 57356, October 27, 1998 and 69 FR 21604, April 21, 2004), which addresses the interstate transport of ozone, does not apply to Station #167's combustion turbines (see Inapplicable Requirements).

**COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, was conducted on May 16, 2012. The facility was deemed to be in compliance with the October 27, 2008 Title V Permit and July 16, 2008 NSR permit. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time

**EMISSION UNIT IDENTIFICATION**

The emissions units at this facility consist of the following:

| <b>Emission Unit ID</b>       | <b>Stack ID</b> | <b>Emission Unit Description</b>  | <b>Size/Rated Capacity*</b>       |
|-------------------------------|-----------------|---|-----------------------------------|
| <b>Fuel Burning Equipment</b> |                 |   |                                   |
| M/L 1                         | 01              | combustion turbine, Solar Centaur T4500, 1991   | 40.44 Million BTU/Hr              |
| M/L 2                         | 02              | combustion turbine, Solar Centaur T4500, 1991   | 40.44 Million BTU/Hr              |
| IA 14                         | IA 14           | Eaton/Generac EGEN150, 150 kW emergency electric generator, 2013  | 231 HP natural gas-fired 4SRB-ICE |
| <b>Process</b>                |                 |   |                                   |
| FUGS                          | fugitive        | Facility-wide piping components (valves, flanges, etc), engine crankcase vents, compressor leaks, and pipeline blow downs <sup>2</sup> , 1991 | N/A                               |

**EMISSIONS INVENTORY**

A copy of the 2012 annual emission inventory is attached. Emissions are summarized in the following table.

<sup>2</sup> Fugitive emissions do not include VOC emissions from condensate storage tanks. Condensate storage tanks have been listed as Insignificant Activities.

2012 Actual Emissions

|                        | 2012 Criteria Pollutant Emission in Tons/Year |     |                 |                  |                 |
|------------------------|---|-----|-----------------|------------------|-----------------|
| Emission Unit          | VOC <sup>3</sup>                              | CO  | SO <sub>2</sub> | PM <sub>10</sub> | NO <sub>x</sub> |
| Compressor Station 167 | 1.0   | 1.2 | 0.02            | 0.05             | 4.2             |

**SOLAR CENTAUR COMBUSTION TURBINES - APPLICABLE REQUIREMENTS – (M/L1, M/L2)**

The permit dated July 16, 2008 limits fuel to natural gas only, annual natural gas throughput (consumption) for each turbine to 374 x 10<sup>6</sup> ft<sup>3</sup>/yr, 0.01% (weight) fuel sulfur content, and 5 % opacity. Since the permitted sulfur limit (0.01 % by weight) is less than the NSPS Subpart GG sulfur limit, the NSPS limit has been streamlined out of the Title V permit. The permit limits (hourly and annual) were calculated using either vendor guaranteed emission factors (NO<sub>x</sub>, CO, and VOC) and mass balance (SO<sub>2</sub>). The permitted emissions from each turbine (Ref. M/L1, M/L2) are limited to:

| Pollutant       | NSPS emission limit   | Hourly emissions                                 | Annual emissions |
|-----------------|---|--|------------------|
| SO <sub>2</sub> | Fuel sulfur content standard in 40 CFR 60.333(b) of 0.8 percent by weight | 0.4 lb/hr and 0.01% fuel sulfur content (weight) | 1.8 ton/yr       |
| NO <sub>x</sub> | 166 ppmvd @ 15% O <sub>2</sub> & ISO ambient conditions per 40 CFR 60.332 | 22.0 lb/hr                                       | 96.2 ton/yr      |
| CO              |   | 6.3 lb/hr  | 27.6 ton/yr      |
| VOC             |   | 1.4 lb/hr  | 6.1 ton/yr       |

The NSPS NO<sub>x</sub> emission rate limit was calculated per the equation in §40 CFR 60.332(a)(2) to be:

$$STD = 0.015 \times \frac{(14.4)}{Y} + F$$

where: Y is the manufacturer's maximum rated capacity (kJ/w-hr)  
 F is the fuel bound N, and  
 STD is the allowable emissions

<sup>3</sup>Transco requested VOC emissions be rounded up from 0.6 tons/yr to 1.0 tons/yr.

The 1991, 2003, and 2008 permit(s) did not evaluate or limit PM and PM-10 emissions from the two gas-fired turbines (Ref. M/L1, M/L2). The potential PM-10 (PM=PM-10) emissions (including condensible particulate matter) are calculated using the AP42 Section 3.1, Stationary Gas Turbines, dates 4/2000, emission factor of  $6.6 \times 10^{-3}$  lb/MMBtu to be:

$$\text{Annual PM-10 (total)} = \frac{2 \times 374 \times 10^6 \text{ ft}^3/\text{yr} \times 1000 \text{ Btu}/\text{ft}^3 \times 6.6 \times 10^{-3} \text{ lb}/\text{MMBtu}}{1 \times 10^6 \times 2000 \text{ lb}/\text{ton}} = 2.47 \text{ tons}/\text{yr}$$

Compressor Station #167 is not a major source of PM and PM-10 emissions, and the permittee is only required to pay fees on the PM-10 emissions. Additional testing, monitoring, and recordkeeping for PM/PM-10 are not required.

### **NSPS Fuel Sulfur and SO<sub>x</sub> Emissions Monitoring**

Transco is a distributor of natural gas for the East Coast. The turbines (Ref. M/L1, M/L2) burn pipeline quality natural gas. Since many of Transco's compressor station's turbines are subject to the provisions of NSPS Subpart GG, Transco has obtained approval for a custom fuel sulfur monitoring program as specified in the EPA Region III letter dated April 2, 1991 and EPA Central Office letter April 12, 1996. The sulfur content of the fuel (natural gas) will be monitored according to procedures specified by permit condition in the permit dated July 16, 2008, which incorporates by reference both the provisions of NSPS Subpart GG §40 CFR 60.334 and the custom fuel monitoring schedule. The SO<sub>2</sub> emissions are the result of fuel sulfur content. The SO<sub>2</sub> emissions were established using maximum hourly and permitted annual fuel consumption, maximum fuel sulfur content, and AP42 Section 3.1 emission factors. The permittee will demonstrate compliance to the SO<sub>2</sub> emissions through fuel sulfur monitoring and record keeping.

### **NSPS Fuel Nitrogen Monitoring**

The two 40.44 MMBtu/hr (heat input) Solar Centaur T-4500 turbines (Ref. M/L1, M/L2) were constructed in 1991 (initially permitted October 16, 1990), do not have add on NO<sub>x</sub> controls, and are subject to the provisions of NSPS Subpart GG.

The NSPS Subpart GG monitoring of the nitrogen content of the fuel (pipeline quality natural gas) for the turbines (Ref. M/L1, M/L2), as required by 40 CFR 60.334, has been waived by EPA Region III per the letter dated April 2, 1991. The permit requires the permittee to submit written notification to the Department, within 30 days of the change, as to which fuel monitoring schedule/regime will be used to demonstrate compliance to NSPS Subpart GG.

### **MACT Subpart YYYY Monitoring**

The turbines are located at an area HAP source and the provisions of 40 CFR 63 Subpart YYYY, the National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, do not apply. Therefore, periodic monitoring is required for CO, NO<sub>x</sub>, and VOC emissions.

### **Periodic Monitoring - Visual Observations**

The NSR permit dated July 16, 2008 and NSPS Subpart GG do not have sufficient monitoring to demonstrate compliance to the hourly NO<sub>x</sub>, CO, and VOC emission limits<sup>4</sup>. Hence a visual observation for the presence of opacity when the turbines are running or for routine testing or maintenance based on the schedule in the permit is required as an indicator of proper operations and thereby provide assurance of compliance to short-term NO<sub>x</sub>, CO, VOC emissions and opacity limits.

When the turbines (Ref. M/L1, M/L2) are operating or during routine testing, the permittee shall make an observation for the presence of visible emissions from each turbine's exhaust stack (Ref. 01, 02) based on the operating schedule in Permit Condition No. 10. If visible emissions are observed, the permittee will have the option to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions' compliance with the 5% opacity limit. The permittee will keep a log of observations, any VEE recordings and any corrective actions.

### **Periodic Monitoring - Testing**

Compressor Station #167 is a remotely operated facility that has been historically operated at less than 10% (16.5 ton/yr NO<sub>x</sub>/192.4 ton/yr NO<sub>x</sub>) of its permitted annual capacity and combusts only pipeline quality natural gas. At a frequency not to exceed 5 years, the permittee shall conduct a stack test for NO<sub>x</sub> from a turbine (Ref. M/L1, M/L2, alternating between each) using Reference Method 7E (reference 40 CFR 60, Appendix A) or alternate test methods as approved by the regional office. Compliance to the SO<sub>x</sub> emission limit will be demonstrated by fuel sulfur monitoring. CO and VOC emission rates are the result of the design of the turbine, and will be minimized through proper operating and maintenance practices. The permit requires Transco to have available records of fuel consumption, written operating procedures and maintenance schedules for the turbines, and requires written records of any corrective actions. Compliance to the NO<sub>x</sub>, VOC, and CO annual emission limits will be demonstrated through records of fuel consumption. The permit has sufficient monitoring and testing to demonstrate

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<sup>4</sup> Per 40 CFR 64.2(b)(i), CAM is not required for the regulated pollutant emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

compliance to the permit's limits and additional testing is not required for the turbines.

### **Recordkeeping**

The permit requires the permittee to maintain the following records, which include, but not limited to, for five years:

- The annual throughput of fuel consumption in cubic feet per turbine (Ref. M/L1, M/L2), calculated monthly as the sum of each previous consecutive 12 month period.
- Hours of operation per turbine (Ref. M/L1, M/L2), calculated monthly as the sum of each previous consecutive 12 month period.
- All fuel monitoring reports.
- The equations, emission factors, origin of emission factors, and all supporting documentation for criteria pollutant emissions.
- Scheduled and unscheduled maintenance and operator training to each turbine (Ref. M/L1, M/L2).
- Results of all stack tests, visual emissions examinations (VEE), periodic monitoring, and performance evaluations.
- Copies of all notifications.

### **EMERGENCY ELECTRICAL GENERATOR - APPLICABLE REQUIREMENTS – (IA 14)**

The Eaton/Generac model EGEN150 emergency electric generator is rated at 150kW and is powered by 6.8 liter, 10-cylinder natural gas-fired, naturally aspirated 4SRB-ICE. Transco does not intend to use this electric generator for peak shaving, but only when normal electric service is interrupted. This emergency electric generator is rated at 231 HP, and will operate less than 500 hours/yr; therefore is not subject to Article 6 (minor new source permitting) per 9 VAC 5-80-1105.D<sup>5</sup>. Although Virginia has not accepted delegation of NSPS Subpart JJJJ and MACT Subpart ZZZZ for minor source permitting, both subparts contain applicable requirements for the Title V permit program. This electric generator meets the definition of a new emergency stationary 4SRB-ICE per 40 CFR 60.4248 and 40 CFR 63.6675.

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<sup>5</sup> CO emission calc:  $231 \text{ bhp} * 1.51 \text{ gr//bhp-hr}/453.6 \text{ gr/lb} * 500 \text{ hr}/2000 \text{ lb/ton} = 0.19 \text{ ton/yr} < 100 \text{ ton/yr}$   
NOx emission calc :  $231 \text{ bhp} * 0.02 \text{ gr//bhp-hr}/453.6 \text{ gr/lb} * 500 \text{ hr}/2000 \text{ lb/ton} = 0.003 \text{ ton/yr} < 10 \text{ ton/yr}$

**NSPS Subpart JJJJ**

This 4SRB-ICE burns pipeline quality natural gas, was manufactured after January 1, 2009, and is certified by the manufacturer to be NSPS Subpart JJJJ compliant per 40 CFR 60.4232(e), 40 CFR 60.4241, 40 CFR 60.4242 and 40 CFR Part 1068. Since this emergency engine is rated at less than 500 HP and is certified to be a compliant engine by the manufacturer, initial and subsequent performance testing is not required per 40 CFR 60.4243(a). The permitted emissions from this 4SRB-RICE are limited to the following:

| Pollutant       | NSPS emission limits <sup>Note a</sup>                               | g/HP-hr | ppmvd @ 15% O <sub>2</sub> |
|-----------------|--|---------|----------------------------|
| SO <sub>2</sub> | Pipeline quality natural gas with 0.01% fuel sulfur content (weight) | N/A     | N/A                        |
| NO <sub>x</sub> | Table 1, 40 CFR 1068, and 40 CFR 60.4233(e)                          | 2.0     | 160                        |
| CO              | Table 1, 40 CFR 1068, and 40 CFR 60.4233(e)                          | 4.0     | 540                        |
| VOC             | Table 1, 40 CFR 1068, and 40 CFR 60.4233(e)                          | 1.0     | 86                         |

<sup>Note a</sup> either g/HP-hr or ppmvd, but not both limits

Compliance with the emission limits for emergency engines in 40 CFR 60.4233(e) and Table 1 of Subpart JJJJ will be demonstrated by providing pipeline quality natural gas, operating the engine and maintaining the catalytic converter in accordance with the manufacturer written instructions, installation of a nonresettable hour meter, and keeping records of conducted maintenance per 40 CFR 60.4243. This engine is required to be in compliance with all applicable requirements upon start up. In addition to fuel and maintenance records, Transco is required to maintain written operating and maintenance procedures, records of hours of operation for maintenance checks, malfunctions, readiness testing, periodic monitoring, and emergency demand response episodes to demonstrate compliance with 40 CFR 60.4243(d). Transco will submit all notifications and records required by 40 CFR 60.4245. Table 3 of NSPS Subpart JJJJ lists the applicability of NSPS Subpart A to this subpart.

**MACT Subpart ZZZZ**

A new emergency 4SRB-RICE with a site rating of less than 500 HP located at an area source that meets the applicable requirements of NSPS Subpart JJJJ also meets the applicable requirements of MACT Subpart ZZZZ per 40 CFR 63.6590(c). No additional MACT requirements are required for this emergency engine.

**Periodic Monitoring - Visual Observations**

Station 167 is a remotely operated facility that historically has been operated at less than 10% of its permitted annual potential, and this electric generator is only used for emergencies. Monitoring of opacity will require the permittee to, when the emergency generator (Ref. IA 14) is operated for routine testing and maintenance, observe for the presence of visible emissions from exhaust stack. If visible emissions are observed, the permittee will have the option to take timely corrective action to resume operations

without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions' compliance. The permittee will keep a log of observations, any VEE recordings and any corrective actions. If emergency electric generator has not operated for any period during the month, this fact shall be noted in the log, and the visible emission observation for the idle emission unit will not be required.

### **Periodic Monitoring - Testing**

The 4SRB-ICE is a natural gas-fired certified emissions compliant engine operating an emergency electrical generator. Since this engine burns only pipeline quality natural gas, is rated at less than 500 HP, and is limited to 500 operating hours/yr, periodic stack testing is not required. Compliance with the emission limits will be demonstrated by operating and maintaining the engine in accordance to the manufacturer's written instructions and keeping records of scheduled and unscheduled maintenance.

### **Recordkeeping**

NSPS Subpart JJJJ does not require records of fuel consumption for emergency 4SRB-ICE. Since the emergency electric generator (Ref. IA 14) has been certified compliant combusting pipeline quality natural gas by the manufacturer and has a site rating of less than 500 HP, fuel consumption records are not required per 40 CFR 60.4245(c). Transco will monitor annual hours of operation for testing, routine maintenance, and emergency demand response with an engine nonresettable hour meter.

The permit requires the permittee to maintain the following records, which include, but not limited to, for five years:

- Annual hours of operation for testing and routine maintenance, emergency demand response, and electric power interruption of the emergency electric generator (Ref. IA 14), calculated monthly as the sum of each previous consecutive 12 month period.
- Scheduled and unscheduled maintenance and operator training for the emergency electric generator (Ref. IA 14).
- Results of visual emissions examinations (VEE).
- Copies of all notifications.

### **Fugitive Emissions from Process Equipment – (Ref. FUGS)**

Natural gas compressor stations are not one of the 27 sources where fugitive emissions count toward the PSD permitting thresholds. Transco has identified two sources of facility-wide fugitive VOC and HAPs emissions. The first source of fugitive VOC emissions are due to natural gas leaking from piping components (valves, flanges, etc) and compressor packing. The second source of fugitive VOC emission are due to release of natural gas due to pig launching and recovery, and scheduled and emergency pipeline blow downs, which are directly related to pipeline inspection and maintenance. The fugitive VOC emissions are not subject to any 9 VAC 5 Chapter 50 emissions limitations. In addition to containing VOCs, natural gas contains trace amounts of benzene, toluene, xylene, ethyl benzene, and n-hexane, which are currently regulated HAPs. The HAPs emissions from these fugitive sources are very small (see Title V permit application for details).

Transco has projected the potential VOC emissions from fugitive sources to be: 3.8 tons/yr from leaks; and 4.2 tons/yr from blowdowns, pig launching, and pig recovery; for a total of 8.0 tons/yr (see Title V application). Fugitive total HAPs emissions have been calculated by the source to be approximately 0.11 tons/yr (see Title V application). Fugitive VOC from natural gas compressor stations are not subject to any current 9 VAC 5 Chapter 40 or 50 emission limitations. The combined fugitive VOC emissions exceed the 5 tons/yr Insignificant Activity exemption level per 9 VAC 5-80-720.B.2, and fugitive emissions are a Significant Emission Unit.

Transco will be required to calculate fugitive VOC emissions on a calendar year basis (January 1-December 31), and to submit the results in the annual Title V emissions statement. In addition, Transco will be required to pay Title V Permit fees on the fugitive VOC emissions. Transco will be required to keep records of the fugitive VOC and HAP emissions calculations for five years.

### **Periodic Monitoring - Visual Observations**

Due to the transient and fugitive nature of the FUGS emission points, the absence of particulate matter, and no identified applicable standards or limits, periodic monitoring is not required. Therefore, the Title V permit does not require periodic monitoring for fugitive emissions from piping components and pipeline blowdowns.

### **Recordkeeping**

The permit requires the permittee to maintain the following records, which include, but not limited to, for five years:

- The equations, emission factors, origin of emission factors, and all supporting documentation for criteria pollutant emissions.

- Calculations of fugitive VOC emissions on a calendar year basis (January 1-December 31).<sup>6</sup>
- Copies of all notifications.

### **Greenhouse Gases**

Greenhouse gases (GHG) are a group of pollutants of which carbon dioxide, nitrous oxide or N<sub>2</sub>O, methane or CH<sub>4</sub> are of importance for this project. GHG is subject to regulation under the PSD program if the project occurs at a new stationary source with a potential to emit (PTE) greater than 100,000 tons of CO<sub>2</sub> equivalents (CO<sub>2</sub>e<sup>7</sup>) per year. Transco submitted potential to emit (PTE) and 2011 actual greenhouse gas (GHG) emissions from the Mecklenburg facility. GHGs are emitted from the turbines (Ref. M/L1, M/L2) and fugitive sources (Ref. FUGS). Transco has calculated<sup>8</sup> the PTE for GHGs to be 43,909 tons/yr of CO<sub>2</sub>e, which is less than less than 100,000 tons/yr and GHG is not subject to regulation.

### **Streamlined Requirements**

NSPS Subpart GG fuel sulfur limit of 0.8% (weight) has been streamlined out of the Title V permit. The permit dated July 16, 2008 limits the natural gas sulfur content to less than 0.01% (weight). Condition 11 of the July 16, 2008 NSR permit, Requirements by Reference, has been streamlined out of the Title V permit. Title V permits are required to include all applicable requirements that the stationary source or emission unit is subject to, which is more conservative than requirement by reference.

The requirements of MACT Subpart ZZZZ for the emergency 4SRB-ICE generator (Ref. IA 14) have been streamlined out of the Title V per 40 CFR 63.6590(c). Compliance with the applicable provisions of NSPS Subpart JJJJ for new compliant lean burn emergency engines with a site rating of less than 500 HP also meets the applicable requirements of MACT Subpart ZZZZ.

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<sup>6</sup> Station 167 is not major for VOCs and there are few Chapter 50 requirements for fugitive emissions from pipe flanges, valves, and seals. Therefore, monthly calculations for fugitive VOC emissions are not required.

<sup>7</sup> CO<sub>2</sub>e is the emission rate of each GHG species multiplied by its respective global warming potential (GWP) from 40CFR Part 98.

<sup>8</sup> Does not include 231 HP 4SRB-RICE powered emergency electric generator.

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

This general condition cites the sections that follow:

9 VAC 5-80-80. Application

9 VAC 5-80-140. Permit Shield

9 VAC 5-80-150. Action on Permit Applications

In the event that the Title V Permit General Conditions are the same as the July 16, 2008 NSR Permit General Conditions, the Title V Permit includes both regulatory citations.

## **STATE ONLY APPLICABLE REQUIREMENTS**

None

## **FUTURE APPLICABLE REQUIREMENTS**

None identified

## **INAPPLICABLE REQUIREMENTS**

Compressor Station #167 does not process, store, or upgrade natural gas, is not a major HAP source, and is not subject to the provisions of Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities per 40 CFR 63.760(a).

Compressor Station #167 does not include a glycol dehydration system, natural gas storage, and is not a major HAP source. The June 29, 2001 amendment to MACT Subpart HHH states that a “compressor station that transports natural gas prior to the point of custody transfer, or to a natural gas processing plant (if present) is not considered a part of the natural gas transmission and storage source category.” Therefore, Compressor Station #167 is not subject to the provisions of Subpart HHH- National Emission Standards for Hazardous Air Pollutants from Natural Gas

Transmission and Storage Facilities per § 63.1270(a).

Compressor Station #167 has various organic liquid storage tanks which are in a source category subject to the provisions of 40 CFR 63 Subpart EEEE (OLD MACT), the NESHAP for Organic Liquids Distribution (Non-Gasoline). Compressor Station #167 is not a major HAP source and Subpart EEEE is an inapplicable requirement.

Compressor Station #167's turbines are in a source category subject to the provisions of 9 VAC 5 Chapter 60 and 40 CFR 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines. Since Station #167 is not a major source of HAPs, Subpart YYYY is not an applicable requirement.

Transco compressor stations are in a source category subject to the NO<sub>x</sub> SIP Call Rule (63 FR 57356, October 27, 1998 and 69 FR 21604, April 21, 2004), which addresses the interstate transport of ozone. Phase II of the Rule requires a 90% reduction for existing electrical cogeneration units (EGU) and non-electrical generating units (e.g., boilers, stationary combustion turbines) with heat input capacity greater than 250 MMBtu/hr and an 82% reduction for large stationary internal combustion engines. Since Compressor Station #167's combustion turbines are rated at 40.44 MMBtu/hr (heat input), each, they are not subject to the NO<sub>x</sub> SIP Call.

The two combustion turbines (Ref. M/L1, M/L2) do not have add-on NO<sub>x</sub> pollution control equipment as defined per 40 CFR 64.1 and Compliance Assurance Monitoring (CAM) does not apply per 40 CFR 64.2(a).

The emergency 4SRB-ICE generator (Ref. IA 14) is subject to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act (s) and is not a major source before control<sup>9</sup>; therefore Compliance Assurance Monitoring (CAM) does not apply per 40 CFR 64.2(b)(i).

The two combustion turbines (Ref. M/L1, M/L2) were manufactured prior to and have not been modified after February 18, 2005, and are not subject to the provisions of 40 CFR 60 Subpart KKKK, the New Source Performance Standards (NSPS) for Stationary Combustion Turbines per 40 CFR 60.4300.

Compressor Station #167's volatile organic liquid storage vessels have a capacity of less than 75m<sup>3</sup> (19, 813 gallons) and are not subject to 40 CFR 60 Subpart Kb, the National Standards of Performance (NSPS) for Volatile Organic Liquid Storage Vessels per 40 CFR 60.110b(a).

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<sup>9</sup> 4SRB-ICE CO emission calc:  $(231 \text{ HP} \times 1.51 \text{ g/HP-hr/1-9}) \times 8760 \text{ hr/yr} / (453.6 \text{ g/lb} \times 2000 \text{ lb/t}) = 33.7 \text{ tons/yr}$   
Assume 90% CO control from catalytic converter (see AP42, Section 3.2, Natural Gas-fired Reciprocating Engines, 7/2000, Paragraph 3.2.4.2. CO g/HP-hr from Generac Exhaust Emissions Data sheet.

Compressor Station #167 is regulated under 40 CFR 192 and is not subject to the provisions of 40 CFR 68, Chemical Accident Prevention Provision or 40 CFR 68.3, CAA Section 112(r), Risk Management Plans, since it is not a stationary source per 40 CFR 68.3.

Greenhouse gases (GHG) are a group of pollutants of which carbon dioxide, nitrous oxide or N<sub>2</sub>O, methane or CH<sub>4</sub> are of importance for Title V permits. GHGs are emitted from both turbines (Ref. M/L1, M/L2) and fugitive sources (Ref. FUG) at this stationary source. Transco has calculated the PTE10 for CO<sub>2</sub>e to be 43,909 tons/yr, which is less than 100,000 tons/yr and GHG is not subject to regulation.

### **COMPLIANCE PLAN**

Not required

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<sup>10</sup> See Table 1 of Attachment D of April 3, 2013 Title V permit application

**INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

| <b>Emission Unit No.</b> | <b>Emission Unit Description</b>                               | <b>Citation</b> | <b>Pollutant(s) Emitted (9 VAC 5-80-720 B)</b> | <b>Rated Capacity (9 VAC 5-80-720 C)</b> |
|--------------------------|--|-----------------|--|--|
| IA1                      | Used Oil Sump  | 5-80-720 C.     | N/A  | 129 gallons                              |
| IA2                      | 1,058-gal Used Oil/Water Sump                                  | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA3                      | 1,057-gal Wastewater/Oil Separator (#10)                       | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA4                      | 12,600-gal Wastewater Storage Tank (#11)                       | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA5                      | 4,200-gal Used Oil Storage Tank (#12)                          | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA6                      | 12,600-gal Natural Gas Condensate Storage Tank                 | 5-80-720.B      | VOCs (< 5 ton/yr)                              | NA                                       |
| IA7                      | Lube Oil Storage Tank  | 5-80-720 C.     | N/A  | 226 gallons                              |
| IA8                      | Natural Gas Condensate Storage Tank (#39)                      | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA9                      | Parts Washer   | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA10                     | M & R Natural Gas Condensate Drip Storage Tank                 | 5-80-720 B.     | VOCs (< 5 ton/yr)                              | NA                                       |
| IA13                     | 8.85 MMBtu/hr M&R Natural Gas Odorant System Maintenance Flare | 5-80-720.C      | N/A  | < 10 MMBtu/hr Natural gas-fired)         |

<sup>1</sup>The citation criteria for insignificant activities are as follows:  
 9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit

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9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

**CONFIDENTIAL INFORMATION**

None identified

**PUBLIC PARTICIPATION**

The proposed permit will be placed on public notice in the Chase City News Progress on January 15, 2014 and the public comment period will run to February 18, 2014.