

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Transcontinental Gas Pipe Line Company, LLC
Transco Compressor Station 170
Appomattox County, Virginia
Permit No. BRRO-30863

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, Transcontinental Gas Pipe Line Company, LLC (Transco) has applied for a modification of the Title V Operating Permit for its Compressor Station 170 in Appomattox County, VA. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: Terry Moore
Terry Moore
(434) 582-6251

Date: 9/11/15

Air Permit Manager: David J. Brown
David J. Brown

Date: 9/11/15

Regional Director: Robert J. Weld
Robert J. Weld

Date: 9/11/15

FACILITY INFORMATION

Permittee/Owner

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

Facility

Transco Compressor Station No. 170
2444 Pumping Station Road
Appomattox County, Virginia 24522

County-Plant Identification Number: 51-011-00011

Note: Following the end of the public comment period, but prior to issuing the amended permit, the DEQ received a change in the "Contact Person" listed in the draft permit. The updated information is included in the permit.

SOURCE DESCRIPTION

NAICS Code: 486210 – Natural Gas Transmission

Transcontinental Gas Pipe Line Company, LLC (Transco) is authorized to operate a natural gas pipeline compressor station power production facility (i.e., Transcontinental Gas Pipe Line Company, LLC Compressor Station No. 170) located in Appomattox County, Virginia. Transco is an interstate natural gas transmission company. Transco's compressor stations are used to compress and move the gas along the system. Compression is made possible through the application of natural gas-fired, spark ignited, internal combustion, reciprocating compressor engines (SRICE). Compressor Station #170 was constructed prior to March 17, 1972 and is a remotely operated (dispatched) natural gas transmission compressor station that consists of the following:

- eleven (M/L 1-11) 2-cycle, lean burn, (2SLB) and
- two (AUX 4 – 5) 4-cycle, rich burn (RSRB) combustion engines

SIGNIFICANT PERMIT MODIFICATION INFORMATION

AUX 4 and 5 are subject to requirements NSPS Subpart JJJJ and MACT Subpart ZZZZ. The applicable requirements of these subparts for nonemergency engines, as identified in Transco's Title V renewal application, were included in the Title V Permit effective date June 4, 2014 (6/4/14 T5). Based on actual and future operation Transco has identified AUX 4 and 5 engines as emergency stationary RICE as defined by both subparts and has submitted an application to

amend the Title V permit accordingly. Therefore, the nonemergency requirements contained in the 6/4/14 T5 are removed and the applicable emergency requirements included in the draft modified Title V permit. For more information see EMISSION UNIT APPLICABLE REQUIREMENTS.

As a result of modifying the Title V permit to address the applicable requirements the permit conditions numbering in the Title V permit has changed.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. 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 is in compliance.

MAJOR PERMIT EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following: See Title V Permit Emission Units Table. There are no changes resulting from this signification modification.

EMISSIONS INVENTORY

The 2013 annual emission update is summarized below in the Criteria and Hazardous Air Pollutant tables.

2013 Actual Criteria Pollutant Emission in Tons/Year				
VOC	CO	SO ₂	PM ₁₀	NO _x (NO ₂)
44.7	58.7	0.6	9.7	172.9

Pollutant	2013 Hazardous Air Pollutant Emission in Tons/Yr
Formaldehyde	12.1

EMISSION UNIT APPLICABLE REQUIREMENTS

There are no changes to identified applicable requirements for Transco’s compressor engines M/L 1-11. However, Transco request¹ that Condition 25, observation of visible emissions for

¹ Ray Terrazas, Senior Environmental Specialist with Williams Transco Pipeline, email dated 7/17/15 states: “Transco formally requests an alteration to Station 170 Title V Permit Condition 25 to read as follows as indicated with yellow highlight. The site is not manned 24/7 therefore Transco would like to request this alteration to ensure compliance and make sure it is applicable and can be met only when personnel is present at the site.”

M/L 1-11, of the current Title V permit be revised to include the same proposed language² as **Condition 32**, observation of visible emissions for AUX 4 and 5, of the draft permit.

Condition 25 is revised to read as follows (the yellow highlighted text is the proposed additional language. The remaining conditions associated with M/L 1 – 11 (i.e., **T5 1** through **26**), as discussed in the SOB dated 6/4/14 (6/4/14 SOB) for the Title V permit dated 6/4/14 (6/4/14 **T5**), remain unchanged in the modified Title V permit (**T5**).

25. Fuel Burning Equipment Requirements - (M/L 1-11) - Monitoring - Daily observation of the presence of visible emissions from each engine stack shall be made during normal business hours when the engine is operating. The presence of visible emissions shall require the permittee to:

The SOB for the modified draft Title V permit appends the 6/4/14 SOB. As previously identified AUX 4 and 5 are subject to NSPS Subpart JJJJ and MACT Subpart ZZZZ. The changes to the applicable Title V requirements for AUX 4 and 5 are discussed in the SOB as delineated by:

- **Fuel Burning Requirements**, includes the 12/19/12 new source review permit
- **NSPS Subpart JJJJ Requirements**
- **MACT Subpart ZZZZ Requirements**

The significant modification does not impact the applicability of CAM to the AUX 4 and 5 as discussed in the 6/4/14 SOB. Also, as the monitoring, along with the recordkeeping as discussed in the 6/4/14 SOB remains sufficient. As discussed in the NSPS and MACT requirements discussion³ subsequent testing is no longer required by the MACT, but subsequent testing is required by the NSPS.

Fuel Burning Requirements

Identifying AUX 4 and 5 as emergency engines with respect to NSPS and MACT subparts does

² Ray Terrazas' email dated 6/26/15 – providing comments on the draft amended Title V permit, including revising draft Condition 32 as follows as indicated with yellow highlight “Daily observation of the presence of visible emissions from each engine stack shall be made during normal business hours when the engine is operating. The presence of visible emissions shall require the permittee to...” Mr. Terrazas's email dated 7/22/15 states “[t]he normal business hours for Station 170 are Monday through Thursday 6:30 am to 4:00 pm, and Fridays from 6:30 am to 10:30 am.”.

³ United States Court of Appeals for the District of Columbia Circuit 5/1/2015 USCA Case 313-1093: “We reverse the challenged rules that contain the 100-hour exemption for emergency engines under the National Emissions Standards, 40 C.F.R. § 63.6640(f)(2), and the Performance Standards, 40 C.F.R. §§ 60.4211(f)(2), 60.4243(d)(2). We remand them to EPA for further action. See 42 U.S.C. § 7607(d)(9); *West Virginia*, 362 F.3d at 867. The rest of the 2013 Rule remains in effect.” At this time it would appear that the court decision will allow AUX 4 and 5 to operate 50 hours each for nonemergency events (e.g., maintenance checks, readiness testing) under both rules. Mr. Ray Terrazas-Correa confirmed in a 6/1/15 telephone conversation that the 50 hours would be sufficient for these engines. Therefore, these engines would meet the rules' requirements for emergency engines.

not impact the requirements from the NSR 12/19/12 permit. However, the AUX 4 and 5 have been constructed and performance test completed. Therefore, the conditions from the 12/19/12 permit and the 6/4/14 T5 addressing “invalidation of the construction permit”, “initial performance testing” and initial notification” are not included in the T5 as delineated below:

- *Condition 9* 12/19/12 permit – Invalidation of the construction permit – The construction of AUX 4 and 5 is completed. Corresponding 6/4/14 T5 No. 27.
- *Condition 10* 12/19/12 permit – Permit Suspension/Revocation of the construction permit – The construction of AUX 4 and 5 is completed. Corresponding 6/4/14 T5 No. 28.
- *Condition 7* 12/19/12 permit – Stack Test – Initial performance test completed and submitted to the DEQ. Corresponding 6/4/14 T5 No. 37.
- *Condition 8* 12/19/12 permit – Initial notification – Notifications submitted. Corresponding 6/4/14 T5 No. 38.

The above and the changes to the NSPS and MACT requirements results in the renumbering of the T5 conditions beginning with T5 Condition No. 27. This also includes the following conditions from the 12/19/12 permit that are addressed by T5’s general or facility wide conditions as delineated:

- *Condition 11* 12/19/12 – inspection and entry – see T5 general condition No. 80 (6/14/14 T5 No. 92).
- *Condition 13* 12/19/12 – recordkeeping requirements for bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment – see T5 facility wide condition No. 50.a (6/14/14 T5 No. 62.a).
- *Condition 14* 12/19/12 – malfunction reporting – see T5 general condition No. 68 (6/14/14 T5 No. 80).
- *Condition 15* 12/19/12 – reduce facility operation to avoid NAAQS violations – see T5 facility wide condition No. 53 (6/14/14 T5 No. 65).

The T5 conditions addressing the fuel burning requirements for AUX 4 and 5 are now 27 through 36, with no changes to corresponding current Title V permit conditions, except for T5 32 and 34 as delineated:

- T5 32 (i.e., 6/14/14 T5 No. 34) visible emissions observations as previously discussed.
- T5 34 (i.e., 6/14/14 T5 No. 36) recordkeeping – “h” added⁴ for demonstrating compliance with NSPS Subpart JJJJ’s “50 hours per calendar year⁵ for non-emergency situations” requirement (see T5 47) and for Title V sufficiency of monitoring. The

⁴ Per Mary Cate Oplia, EPA Region III, comment concerning summing the non-emergency operating hours of the calendar year (see Ms Oplia’s 8/27/15 email).

⁵ §60.4243(d) states “50 hours per year” for non-emergency; however, §60.4243(d)(3) states “50 hours per calendar year”. Therefore, “summing” instead of “rolling 12-months” is used for recordkeeping.

engine would not be considered an emergency engine by Subpart JJJJ if the “50 hours” is exceeded.

NSPS Subpart JJJJ Requirements

AUX 4 and 5 are identified in the 6/4/14 T5 to be operated as a nonemergency stationary internal combustion engine (ICE) as defined by Subpart JJJJ. However, since the engines began operation they have operated as emergency stationary ICE per Subpart JJJJ⁶. Per Transco’s request the Subpart JJJJ requirements in 6/4/14 T5 have been revised to reflect the applicable requirements and are contained in the T5 as summarized below. §60.4237(a) requires a non-resettable hour meter to be installed for emergency stationary SI internal combustion engines greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines and §60.4245(b) requires the hours of operation recorded through the non-resettable hour meter for these same emergency engines. The results of initial performance test conducted 1/24/14, as required by Subpart JJJJ and the 6/4/14 T5, show compliance to the applicable Subpart JJJJ emission standard at the time of the test (i.e., nonemergency engines emission standard). The results also show compliance with Subpart JJJJ’s applicable emission standard for emergency engine. The test results and the different applicable emission standards are provided in the below table. Therefore, the non-resettable hour meters are not required by Subpart JJJJ. However, AUX 4 and 5 are equipped with non-resettable hour meter⁷ and the application identifies these meters as a monitoring method for operating hours.

		NOx		CO		VOC	
		g/HP- hr	ppmvd 15% O ₂	g/HP- hr	ppmvd 15% O ₂	g/HP- hr	ppmvd 15% O ₂
AUX4	Performance Test	-	53.7	-	96.8	-	0.1
AUX5	Performance Test	-	10.0	-	64.6	-	0.003
Subpart JJJJ	Emergency (§60.4233(e))	2.0	160	4.0	540	1.0	86

⁶ Compliance has been demonstrated for nonemergency engine requirements as stated in the 6/4/14 T5.

⁷ Per Ray Terrazas-Correa’s 4/2/15 email the engines are equipped with non-resettable hour meters.

	Non-Emergency (Table 1 to Subpart JJJJ Non-Emergency SI Natural Gas)						
Subpart JJJJ	Non-Emergency SI Natural Gas)	1.0	82	2.0	270	0.7	60

Limitations

- 37. Operate the engines as emergency stationary ICE as required and defined by Subpart JJJJ. Corresponding 6/4/14 T5 No. 41 revised to address the engines operate as emergency as defined by Subpart JJJJ. The condition previously addressed the requirements of §60.4233. As previously discussed the 50 hours per year is a calendar year⁸.
- 38. Emission limits. Both g/HP-hr and ppmvd limits are stated because the source can demonstrate compliance with either limit. Corresponding 6/4/14 T5 No. 42 revised to state the applicable emission limits and the “certified” requirement not retained because AUX 4 and 5 are not purchased “certified” engines.
- 39. Maintain the emission standards over the entire life of the engine. The NSPS regulatory citation corrected in Corresponding 6/4/14 T5 No. 43 from §60.4236(b) to §60.4234.
- 40. Maintained and operated the air-to-fuel ratio controllers. No change to Corresponding 6/4/14 T5 No. 43.

Monitoring

There are no specific NSPS monitoring requirements. However, AUX4 and 5 non-resettable hour meters will be used to record the engine’s operating hours. Also, the NSPS requires a maintenance plan, records of maintenance and maintaining and operating the engines in a manner consistent with good air pollution control practice for minimizing emissions.

- 41. Monitoring. New condition. AUX4 and 5 non-resettable hour meters will be used to record AUX4 and 5 operating hours. Also, §60.4237(a) is addressed by the condition. §60.4237(a) requires the installation of a non-resettable hour meter if the engine does not meet the standards applicable to non-emergency engines; and subsequent performance testing is required for emergency engines per T5 Condition 42. Therefore, the applicable standards for Non-Emergency SI Natural Gas fired units, as listed in the above table, are stated in the T5 condition.

Recordkeeping

- 42. Recordkeeping requirements. Corresponding 6/4/14 T5 No. 45 revised to identify the recordkeeping for only noncertified engine (the requirement for certified engine not retained), hours of emergency and nonemergency operations and document what classified

⁸ Mary Cate Oplia, EPA Region III, 8/27/15 email.

the operation as emergency operation. Submitted notifications and maintenance records are retained. The regulatory citation is provided for each requirement.

Notification and Report

43. The initial required Subpart's notifications have been completed. Therefore, corresponding 6/4/14 T5 No. 46 revised to include written notification to the DEQ of the Subpart's required subsequent performance tests. Copies of each performance test (report) to be sent to US EPA and DEQ. "Report" added to the condition description.

Testing

44. Testing – Initial performance test completed⁹. Therefore, corresponding 6/4/14 T5 No. 47 revised to address the subsequent performance testing/compliance demonstration (test methods and procedures) for emergency engines.

General

45. General provisions of NSPS Subpart A.

Compliance

46. Compliance demonstrated as stated in the condition. Corresponding 6/4/14 T5 No. 49 revised to address the maintenance plan and records, good air pollution control practice for minimizing emissions and subsequent performance testing requirements for emergency engines. Subsequent testing is required every 8,760 hrs or 3 years, whichever comes first. The initial performance test is stated in the T5 for clarification of requirements for emergency engine. 40 CFR 60.4244 methods and procedures for the required performance tests is addressed by T5 No. 44; however, because of the "3 years" testing 40 CFR 60.4244(b), which addresses conducting performance test of non-operational engine, is stated verbatim in the T5 No. 46.

MACT Subpart ZZZZ Requirements

AUX 4 and 5 are identified in the 6/4/14 T5 to be operated as a nonemergency stationary reciprocating internal combustion engine (RICE) as defined by Subpart ZZZZ. However, since the engines began operation they have operated as emergency stationary RICE per Subpart ZZZZ¹⁰. Per Transco's request the Subpart ZZZZ requirements in 6/4/14 T5 have been revised to reflect the applicable MACT requirements for "emergency" engines¹¹ and are contained in the

⁹ Initial performance test conducted 1/24/14 and report submitted.

¹⁰ However, compliance has been demonstrated for nonemergency engine requirements as stated in the 6/4/14 T5.

¹¹ The applicable MACT requirements in the 6/4/14 T5 are not retained in the T5 because the requirements have been completed (e.g., testing) and the facility, per §63.6590(b)*, does not have to meet the requirements of this subpart and of subpart A of this part, except for the initial notification requirements of §63.6645(f). Upon the effective date of the Title V permit AUX 4 and 5 will be deemed emergency stationary RICE as defined by Subpart ZZZZ and meets the criteria of §63.6590(b)(i). Because of the limited applicable MACT requirements Attachment B 40 CFR MACT Subpart ZZZZ – Identification of Applicable Requirements of the SOB for the 6/4/14 T5 is not updated or included in this SOB.

*§63.6590(b) "Stationary RICE subject to limited requirements. (1) An affected source which meets either

T5 as summarized below:

Limitations

47. Operate the engines as emergency stationary RICE as required and defined by Subpart ZZZZ; and because the two RICE meet the criteria of §63.6645(b)(1)(i) the source does not have to meet the requirements of Subpart ZZZZ and of subpart A except for the initial notification requirements of §63.6645(f)(1).

Notifications

48. Requires Transco to submit the initial notification required for emergency engines.

Facility Wide Conditions

There are no changes to the facility wide conditions, except for the renumbering of the permit conditions¹².

INSIGNIFICANT EMISSION UNITS

The insignificant emission units remain unchanged.

PERMIT SHIELD AND INAPPLICABLE REQUIREMENTS

The provisions of 9VAC5-80-140 Permit Shield shall apply to changes made under 9VAC5-80-230 significant modification procedures per 9VAC5-80-230.G and the inapplicable requirements remain unchanged.

GENERAL CONDITIONS

The general conditions remain unchanged.

GREENHOUSE GAS (GHG) EMISSIONS

GHG permitting requirements have not been identified for the emissions units at this facility.

STATE ONLY APPLICABLE REQUIREMENTS

There are no state only requirements in the Title V permit.

FUTURE APPLICABLE REQUIREMENTS

No future applicable requirements identified.

of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).
(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).”

¹² Facility Wide Condition 61 of the 6/4/14 T5 is now Condition 47. The renumbering continues with the remaining T5 conditions.

COMPLIANCE PLAN

None

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in the Appomattox Times Virginian from August 5, 2015 to September 4, 2015. No comments from the public received.

ATTACHMENTS

Attachment A: 40 CFR NSPS Subpart JJJJ – Identification of Applicable Requirements for Emergency Engines