

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900131
Inspector's Name: Thomas Gray
Date of Last Inspection: 04/17/2024
Compliance Code: 3 / Compliance - inspection

Issue Date:

Facility Data

Applicant (Facility's Name): Transcontinental Gas Pipe Line Company, LLC - Station 160

Facility Address:
 Transcontinental Gas Pipe Line Company, LLC - Station 160
 4300 NC Highway 65
 Reidsville, NC 27320

SIC: 4922 / Natural Gas Transmission
NAICS: 486210 / Pipeline Transportation of Natural Gas

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 15A NCAC 02Q .0504
NSPS: NA
NESHAP: NA
PSD: NA
PSD Avoidance: NA
NC Toxics: NA
112(r): NA
Other: NA

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Joseph Page Sr. Operations Manager (336) 361-3003 4300 NC Highway 65 Reidsville, NC 27320	Glen Jasek VP GM Eastern Interstates (713) 215-2134 2800 Post Oak Blvd, Suite 600 Houston, TX 77056+6146	Michael Callegari Senior Environmental Specialist (832) 794-0612 2800 Post Oak Boulevard, Suite 600 Houston, TX 77056+6147

Application Data

Application Number: 7900131.24B and .24A
Date Received: 06/18/2024
Application Type: Modification
Application Schedule: TV-Sign-501(b)(2) Part II

Existing Permit Data

Existing Permit Number: 09113/T16
Existing Permit Issue Date: 01/30/2024
Existing Permit Expiration Date: 09/30/2027

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	0.3900	1302.51	115.47	435.85	23.53	70.33	50.72 [Formaldehyde]
2021	0.4200	1447.47	110.49	448.27	23.45	68.56	49.45 [Formaldehyde]
2020	0.2500	1396.78	98.17	414.97	20.40	60.69	43.75 [Formaldehyde]
2019	0.2200	1340.51	73.24	367.30	16.09	44.64	32.18 [Formaldehyde]
2018	0.0700	337.51	32.30	111.94	5.74	17.26	12.45 [Formaldehyde]

Review Engineer: Ed Martin

Review Engineer's Signature: _____ **Date:** _____

DRAFT

Comments / Recommendations:

Issue 09113/T17
Permit Issue Date: _____
Permit Expiration Date: _____

1. Purpose of Application

Application 7900131.24B

Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of The Williams Companies, Inc., submitted a Part II permit application for Compressor Station 160 in accordance with permit condition 2.2 C.2.a of the current Permit 09113T16 for completion of the two-step significant modification Title V process initiated by Application No. 7900131.22A. This condition requires the Permittee to file an amended application following the procedures of Section 15A NCAC 02Q .0500 within one year from the date of beginning operation of any of the sources added in the Part I application (ID Nos. ES-M/L17, ES-M/L18, AUX-04, AUX-05, and EGEN-01). Transco submitted the Part II application on June 18, 2024, and submitted notification on May 14, 2024, stating that beginning of operation occurred on May 7 and 8, 2024. Transco submitted the Part I permit Application 7900131.22A for this equipment on July 14, 2022, which resulted in issuance of permit 09113T15 on April 24, 2023.

The following new sources added in Part I will remain in the permit:

- Two natural gas-fired Solar Titan 130-23502S combustion turbines (ES-M/L17 and ES-M/L18)
- Three natural gas-fired four-stroke, lean-burn (4SLB) generator engines, one of which will be an emergency-use unit (EGEN-01), and two will be non-emergency units (AUX-04 and AUX-05)

With the Part II permit, the following sources are now permanently retired and are being removed from the permit:

- 15 existing two-stroke, lean-burn (2SLB) mainline compressor engines (ES-M/L1 through ES-M/L15)
- Boiler (ES-BLR2)
- Three existing emergency-use generator engines (ES-AUX1 through ES-AUX3)
- One air compressor engine (ES-A/C1)

The existing natural gas-fired dry low NO_x combustion turbine (ES M/L16) will also remain in the permit

The technical review for the Part I application (7900131.22A) is included as Attachment A to this document.

Application 7900131.23A Minor Permit Modification Permit 09113T16 issued January 30, 2024

In this application, Transco requested two major changes to the existing permit 09113T15 to allow the facility to qualify as a minor source of HAPs. The first change requested was to revise the 40 CFR Part 63, Subpart ZZZZ Maximum Achievable Control Technology (MACT) requirements for the two non-emergency generators (AUX-04 and AUX-05) in Section 2.1 F.4 of the permit from the major HAP requirements to the area source requirements. The other change was to add a HAP MACT avoidance condition in Section 2.2 B.5 of the permit.

When the Part I permit 09113T15 was written, the facility was a major source of HAPs. Transco wanted the above changes to enable the facility to demonstrate that it qualifies as a minor source of HAP with the addition of a MACT avoidance condition and the removal of existing legacy equipment. This allowed the facility to address the commissioning period during which time the new equipment added in Permit No. 09113T15 was to begin to operate intermittently while some of the existing equipment was to continue to operate.

The technical review for the Minor Mod application (7900131.23A) is included as Attachment B to this document.

Application 7900131.24A Reopen for Cause

This application was created by DAQ with the intention of reopening Transco's permit 09113T16 for cause pursuant to the process in rule 15A NCAC 02Q .0517 to correct a material mistake in Section 2.1 E.2.f of the permit where the use of a continuous emissions monitoring system (CEMS) to monitor nitrogen oxide (NO_x) emissions is a permit requirement for combustion turbines (ID Nos. ES-M/L17 or ES-M/L18). In Section 2.1 E.2.d of the permit, an initial performance test is required to demonstrate compliance with the 40 CFR Part 60 Subpart KKKK NO_x emission limits, and annual performance tests are also required. The use of a CEMS is a monitoring option under Subpart KKKK, to demonstrate continuous compliance with the NO_x emission limit instead of the annual performance tests. Subpart KKKK specifies annual performance tests must be performed to demonstrate continuous compliance in 40 CFR 60.4340(a) even though, as described in 40 CFR 60.4340(b), it allows the use of

CEMS as an alternative monitoring option to the annual performance tests. It was not made clear when the permit was written and needs to be corrected to indicate that the use of a CEMS is an option to the annual performance tests. This change is shown in the Section 4 permit changes below to the old (current) section 2.1 E.2.f.

Now that the Part II application 7900131.24B has been received, this change is consolidated with that application to provide for a single public notice and EPA review process.

This is a significant permit modification pursuant to 15A NCAC 02Q .0501(b)(2). A 30-day public notice and 45-day EPA review is required.

SUMMARY

In summary, now that the commissioning period, as stated above, is over, and the equipment changes have been implemented as discussed above and in the attachments, the facility will be considered upon issuance of the revised permit to be a true minor source under PSD and a true HAP minor source (See Section 5 below). The Permit will be revised accordingly to remove conditions that no longer apply. See Section 4 for all substantial changes.

2. Facility Description

Transco Compressor Station 160 is a natural gas compressor station that operates under Standard Industrial Classification (SIC) code 4922 and North American Industry Classification System (NAICS) code 486210 and delivers natural gas through a 10,000-mile interstate transmission pipeline system extending from south Texas to New York City, transporting approximately 15% of the nation's natural gas with 57 stations. Compressor Station 160 is located approximately 7 miles west of Reidsville in Rockingham County.

3. Application Chronology

April 24, 2023	A 02Q TV-Sign-501(b)(2) Part I permit 09113T15 (7900131.22A) was issued (see attached Part I review).
January 30, 2024	A Minor modification (7900131.23A) was issued for permit 09113T16 (see attached Minor Mod review).
April 19, 2024	A reopen for cause application (7900131.24A) was initiated in IBeam. 4Those changes are consolidated into this Part II permit.
June 18, 2024	Application 7900131.24B was received and considered complete for processing on this date.
July 11, 2024	Sent draft permit for supervisor's review.
August 14, 2024	Sent an email to Michael Callegari to ask about commence construction dates for ES-M/L16, ES-M/L17, and ES-M/L18 as related to NSPS OOOOa applicability.
August 22, 2024	Michael Callegari responded with the commence construction information requested on August 14, 2024 above as related to the NSPS OOOOa applicability dates. Specifically, for ES-M/L16, he stated that construction had not commenced after September 18, 2015, as it should have to be subject to this rule. For ES-M/L17 and ES-M/L18, he stated construction did commence on or before December 6, 2022, as it should have to be subject to this rule.
August 29, 2024	Sent an email to Michael Callegari and Glen Jasek regarding the fact that there is no monitoring for nitrogen oxides emissions in Section 2.1 A.2 of the permit for combustion turbine ES-M/L16 under 02D .0524 NSPS Subpart GG and that DAQ needs to make corrections in the permit in order to comply with the monitoring requirements of 15A NCAC 02Q .0508(f). (see Section 5 below)
August 29, 2024	Sent an email to Michael Callegari, in response to his answer in his August 22, 2024 email above, stating that since turbine ES-M/L16 did not commence construction after September

18, 2015, it falls outside the applicability dates of NSPS OOOOa and therefore it is not subject to this regulation and will be removed in Section 2.2 B.1 of the permit. Also, for turbines ES-M/L17 and ES-M/L18, where Michael Callegari had stated in his August 22, 2024, email that construction did commence on or before December 6, 2022, there was some question whether this was the case since this date is before the Part I construction permit No. 09113T15 was issued on April 24, 2023 (see Section 5 below). Also, the Winston-Salem Regional Office (WSRO) had received a notification from Transco that construction commenced on these sources on July 26, 2023. (see Section 5)

- August 30, 2024 Had a Teams call with Transco (Michael Callegari, Joe Volker, Bill Scarpinato, and Ed Martin) to discuss proposed NOx testing and NSPS Subpart OOOOa applicability issues, that is regarding when construction commenced on ES-M/L17 and ES-M/L18.

- September 3, 2024 In an email from Michael Callegari, to follow up on the call on August 30, 2024 above, to concur that Williams-Transco would be willing to accept the proposed monitoring language (to cover 40 CFR Part 70) for existing ES-M/L16. (see Section 5, Turbine ES-M/L16 NOx Testing).

- In addition, he noted that the new ES-M/L17 and ES-M/L18 centrifugal compressors will be equipped with dry gas seals regarding applicability to 40 CFR Part 60, Subpart OOOOa.

- September 3, 2024 Michael Callegari sent an email to follow up on the call on August 30, 2024 above, explaining that the notification letter to the WSRO as discussed was for the start of on-site physical construction associated with the new combustion turbines ES-M/L17 and ES-M/L18 (foundations), pertaining to 40 CFR Part 60, Subpart KKKK. However, for purposes of applicability to 40 CFR Part 60, Subpart OOOOa, 40 CFR Part 60 Subpart A §60.2 defines “commenced construction” with respect to the definition of a new source. (see Section 5 below).

- September 23, 2024 Sent the draft permit to the Stationary Source Compliance Branch, Applicant, and the Winston-Salem Regional Office for review.

- October 2, 2024 Received Applicant’s comments on the draft permit.

- October 9, 2024 Sent the draft permit to 30-day public notice and 45-day EPA review.

- xx, 2024 Public notice period ended.

- xx, 2024 EPA’s comment period ended.

- xx, 2024 Permit was issued.

4. Permit Changes

The following changes were made to Air Permit No. 09113T16:*

Old Page No.	Old Section	New Page No.	New Section	Description of Changes
Cover Letter	N/A	N/A	N/A	Amended permit numbers and dates.
4-5	1, table	4	1, table	Removed the following sources: ES-M/L1 through ES-M/L15, ES-AUX1 through ES-AUX3, ES-A/C1, and ES-BLR2. Removed MACT YYYY designation for ES-M/L16, ES-M/L17 and ES-M/L18. Removed MACT designation from MACT/GACT ZZZZ designation for AUX-04, AUX-05, and EGEN-01. Removed footnotes 1 and 2. Added NSPS OOOOa for ES-M/L17 and ES-M/L18.
6-9	2.1 A	--	--	Removed this section for sources ID Nos. ES-M/L1 through ES-M/L10, ID Nos. ES-AUX1 through ES-AUX3, and ES-A/C1. Relabeled remaining sections.
10-11	2.1 B	--	--	Removed this section for sources ID Nos. ES-M/L11 through ES-M/L15.
12	2.1 C, table	5	2.1 A, table	Removed 02D .1111 Subpart YYYY. Removed 15A NCAC 02D .0524 (40 CFR Part 60, Subpart OOOOa).
13	2.1 C.3	--	--	Removed 02D .1111 Subpart YYYY.
--	--	6	2.1 A.2.e	Added performance testing for compliance with the NO _x emission limit.
--	--	6	2.1 A.2.i and j	Added reporting for NO _x emissions performance tests.
--	--	varies	2.1 B through D	Added noncompliance statements throughout for testing, monitoring and recordkeeping.
14-17	2.1 D	--	--	Removed this section for source ID No. ES-BLR2.
18	2.1 E, table	7	2.1 B, table	Removed: <ul style="list-style-type: none"> • 15A NCAC 02D .1111 (40 CFR 63, Subpart YYYY) • 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .0530 (PSD) • 15A NCAC 02Q .0504 Added 15A NCAC 02D .1100 for Toxic Air Pollutants. Changed NSPS OOOOa from Section 2.2.B.1 to Section 2.1.B.3.
19	2.1 E.2.f	8	2.1 B.2.f	Revised first sentence to read: The Permittee may comply with the following NO _x monitoring and recordkeeping requirements as an alternative to the annual performance tests required in Section 2.1 B.2.d (new section) above.
19	2.1 E.2.k	8	2.1 B.2.k	Added note stating: "This notification was made on May 14, 2024, stating that initial startup occurred on May 10, 2024."

Old Page No.	Old Section	New Page No.	New Section	Description of Changes
--	--	9-11	2.1 B.3	Relocated NSPS OOOOa from Section 2.2 D.1 to this section. Updated new title of NSPS OOOOa to “Standards of Performance for Crude Oil and Natural Gas Facilities For Which Construction, Modification, or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022.”
20-23	2.1 E.3	--	--	Removed this condition for 02D .1111 Subpart YYYY.
24	2.1 F, table	12	2.1 C, table	Removed: <ul style="list-style-type: none"> • 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) • 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .0530 (PSD) • 15A NCAC 02Q .0504 • Removed note for Subpart ZZZZ stating: “Applies after the facility becomes a minor source of HAPs per Section 2.2 B.5”
26	2.1 F.3.j	14	2.1 C.3.j	Revised to read: <u>If the engine is subject to performance testing as required by 40 CFR 60.4243(a)(2), the Permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed. Beginning on February 26, 2025, performance tests shall be reported electronically according to 40 CFR 60.4245(f).</u>
26-31	2.1 F.4	--	--	Removed this section for 02D .1111 Subpart ZZZZ.
32	2.1 G, table	15	2.1 D, table	Removed: <ul style="list-style-type: none"> • 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) • 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .0530 (PSD) • 15A NCAC 02Q .0504
34	2.1 G.3.1	17	2.1 D.3.1	Revised to read: <u>If the engine is subject to performance testing as required by 40 CFR 60.4243(a)(2), the Permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed. Beginning on February 26, 2025, performance tests shall be reported electronically according to 40 CFR 60.4245(f).</u>
35	2.1 G.4	--	--	Removed this section for 02D .1111 Subpart ZZZZ.
36-37	2.2 A.1	--	--	Removed this section for 02D .1409.
38-39	2.2 B.2	--	--	Removed this section for 02D .1100 toxics during the commissioning period.
39	2.2 B.3.a	19-20	2.2 A.2.a	Removed: “ after the commissioning period when all legacy sources have been permanently retired” Added toxic limits for sources ES-M/L17 and ES-M/L18.
39	2.2 B.4.a	--	--	Removed this section for 02Q .0711 toxics during the commissioning period.
40	2.2 B.4.b	--	--	Removed: “ after the commissioning period when all legacy sources have been permanently retired”
41	2.2 B.5	--	--	Removed this section for 02D .1111 MACT avoidance.

Old Page No.	Old Section	New Page No.	New Section	Description of Changes
42	2.2 C.1	--	--	Removed this section for 02D .0530 PSD avoidance.
42	2.2 C.2	--	--	Removed this section for 02D .0504 to submit the Title V application.
43-45	2.2 D.1	--	--	Removed sources ES-M/L1 through ES-M/L15, ES-M/L16, ES-AUX1 through ES-AUX3, and ES-A/C1 from 15A NCAC 02D .0524 Subpart OOOOa.
48-55	4	24-31	4	Updated General Conditions to version 8.0 07/10/2024. This changed General Condition D in the first sentence from two copies to one copy of all documents.

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

5. Regulatory Evaluation

Prior to the Part I permit (permit 09113T15), Compressor Station 160 was an existing major stationary source with respect to the PSD permitting program (for stationary sources other than one of the 28 listed source categories). However, with issuance of this Part II permit, the potential to emit of all criteria pollutants are less than the PSD threshold and the facility is no longer a major PSD source. Hence the existing PSD avoidance condition at Section 2.2 C.1 is no longer necessary.

In order to avoid applicability of 15A NCAC 02D .1111 for major sources, facility-wide emissions of HAPs must be less than less than 10 tons of any individual HAP and less than 25 tons of total combined HAP, per consecutive 12-month period. Now that the sources shown in Section 1 above have been permanently retired, the facility becomes a minor source of HAPs. In accordance with permit condition 2.2 B.5.f.ii, Transco notified the WSRO in a letter dated May 14, 2024 that process piping and fuel gas piping was disconnected on April 18, 2024 for sources ES-M/L1 through ES-M/L15, ES-BLR2, ES-AUX1 through ES-AUX3, and ES-A/C1. Thus, as indicated in the Table below, the facility-wide potential emissions of all sources permitted to operate after April 18, 2024 are less than 10 tpy of the largest single HAP and less than 25 tpy of total HAP, resulting in the facility becoming a true minor source of HAPs on that date. Hence the existing HAP avoidance condition at Section 2.2 B.5 of the current permit is no longer necessary.

Potential facility-wide emissions as permitted in the revised permit, which includes the removal of the existing PSD avoidance and HAP major avoidance conditions are summarized below as shown on page B-2 of Appendix C in the application:

Description of Emissions	Annual Emissions in Tons Per Year (tpy)									
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀	PM _{2.5}	Single HAP	Total HAPs	CO _{2e}
Site-Wide Totals	148.40	168.99	39.83	7.41	20.69	20.69	20.69	6.41	9.30	262,263

Notes:

(1) Includes the installation of two new Solar Titan 130 combustion turbines, two non-emergency use generators, one emergency-use generator, and ancillary equipment and operations.

(2) Emission Point IDs ES-M/L1 – ES-M/L15, ES-AUX1-AUX3, ES-A/C1 have been retired from service.

Amendment to 40 CFR Part 63 General Provisions Effective September 10, 2024

This EPA action amends the General Provisions of 40 CFR part 63 to require sources subject to certain major source NESHAP subparts to remain subject to those subparts regardless of whether they reclassify to area source status. Specifically, after September 10, 2024, sources that are subject to the NESHAPs used to reach the 90 percent requirements articulated in CAA section 112(c)(6) must remain subject to those NESHAPs even if they reclassify to area source status. DAQ has considered whether this could potentially apply in processing this

application where Transco is subject to MACT ZZZZ (one of the NESHAPs referenced in the amendment) for generators AUX-04, AUX-05, and EGEN-01; and is requesting a change to reclassify from a major source to area source status. As stated above, the current permit 09113T16 contains a HAP major avoidance condition in Section 2.2 B.5 requiring at Section 2.2 B.5.f.ii for the Permittee to notify the DAQ the date the facility became a minor source of HAPs, which is the date the operating restriction at Section 2.2 B.5.b was met.

Section 2.2 B.5.b reads as follows:

Sources (ID Nos. AUX-04 and AUX-05) shall not operate until commissioning of sources (ID Nos. ES-M/L17 and ES-M/L18) has been completed, sources (ID Nos. ES-M/L17 and ES-M/L18) have been placed into service, and all reciprocating M/L engines have been permanently retired concurrently.

Transco notified the WSRO in a letter dated May 14, 2024, that the facility met the operating restriction at Section 2.2 B.5.b on April 18, 2024 and hence became a HAP minor source on April 18, 2024.

Therefore, since Transco became a minor source of HAPs prior to the September 10, 2024 effective date of this amendment, the reclassification to an area source is not prohibited.

Since the operating restrictions imposed in Section 2.2 B.5.b have been met; the facility-wide potential emissions of all sources permitted to operate after April 18, 2024 were less than 10 tpy of the largest single HAP and less than 25 tpy of total HAP; and the facility-wide potential emissions of the remaining sources in the revised permit are less than 10 tpy of the largest single HAP and less than 25 tpy of total HAP, the facility is a true HAP minor source as of April 18, 2024 and the HAP avoidance condition in the current permit at Section 2.2 B.5 is no longer necessary. The HAP avoidance condition has been removed from the revised draft permit.

Turbine ES-M/L16 NOx Testing

The permit does not contain any monitoring for nitrogen oxides emissions for combustion turbine ES-M/L16 in Section 2.1 A.2 under 15A NCAC 02D .0524 for 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). This is a dry-low NOx turbine which does not use steam or water injection to control NOx emissions and was constructed in 2003. Subpart GG does not require NOx emissions monitoring for such a turbine. However, unless Transco 160 has previously submitted and received "... EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO_x emission limit under §60.332, that approved procedure may continue to be used," as stated in 40 CFR 60.334(c), DAQ needs to make corrections to comply with the monitoring and related recordkeeping and reporting requirements of 15A NCAC 02Q .0508(f). Transco was notified of this in an August 29, 2024, email, as discussed in Section 3 above. In a Teams call on August 30, 2024, Michael Callegari stated that Transco 160 had never such a monitoring procedure approved. Therefore, in order to satisfy the 15A NCAC 02Q .0508(f) requirements (i.e. 40 CFR Part 70), NOx performance testing and reporting is being added in Sections 2.1 A.2.e, i and j of the permit.

In an email from Michael Callegari on September 3, 2024, he followed up on the call on August 30, 2024, to state that Williams-Transco would be willing to accept the proposed monitoring language (to cover 40 CFR Part 70) for existing ES-M/L16, similar to the following:

"Testing

The Permittee shall demonstrate compliance with the emission limit in Section 2.#X.#x above [i.e., 203.4 ppm NOx at 15 percent oxygen, dry (40 CFR Part 60, Subpart GG)] on an annual basis by testing the combustion turbine (ID No. ES-M/L16) in accordance with a testing protocol approved by the DAQ. Each test shall be conducted within 13 months of the previous stack test. If the results of this test are less than 90 percent of the emission limit in Section 2.#X.#x above, the Permittee shall be required to stack test within 61 months of the previous stack test. If these testing requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC ##X.####."

NSPS Subpart OOOOa Applicability for ES-M/L16, ES-M/L17, and ES-M/L18

As noted above in Section 3 above, on August 29, 2024, DAQ informed Transco that since turbine ES-M/L16 did not commence construction after September 18, 2015, it falls outside the applicability dates of NSPS OOOOa and therefore it is not subject to this regulation and will be removed in Section 2.2 B.1 of the Part II permit.

At some point after the Part I permit was issued, the title of NSPS OOOOa was changed from “Standards of Performance for Crude Oil and Natural Gas Facilities For Which Construction, Modification, or Reconstruction Commenced After September 18, 2015” to “Standards of Performance for Crude Oil and Natural Gas Facilities For Which Construction, Modification, or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022.”

For turbines ES-M/L17 and ES-M/L18, in another email on August 29, 2024 (see Section 3 above), Transco stated that construction commenced on or before December 6, 2022. There was some question whether this was the case since this date is before the Part I construction permit No. 09113T15 was issued on April 24, 2023. According to records received at the WSRO, the construction notification dated July 28, 2023, for the two turbines indicated that the pads were poured, and construction commenced on July 26, 2023, which is after the applicability date in NSPS OOOOa. DAQ notified Transco that if this is true, these sources fall outside the current applicability dates of NSPS OOOOa (i.e., after December 6, 2022) and would not be subject to this regulation. In an email from Michael Callegari on September 3, 2024, he stated that the notification letter to the WSRO was for the start of on-site physical construction (on July 26, 2023) was associated with the new combustion turbines ES-M/L17 and ES-M/L18 (foundations), primarily pertaining to 40 CFR Part 60, Subpart A §60.7 through applicability to 40 CFR Part 60, Subpart KKKK and 40 CFR Part 63, Subpart YYYY. However, for purposes of applicability to 40 CFR Part 60, Subpart OOOOa, 40 CFR Part 60 Subpart A §60.2 defines the following:

***Commenced** means, with respect to the definition of new source in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.*

***Construction** means fabrication, erection, or installation of an affected facility.*

Transco states that the binding purchase order (i.e., contractual obligation to undertake a continuous program of construction) for the new turbine packages was executed by Williams-Transco with Solar Turbines in May 2022. Therefore, the purchase order date of May 2022 is prior to the NSPS OOOOa applicability construction end date of December 6, 2022, and the rule does apply to these turbines.

Dry Gas Seals on Centrifugal Compressors

According to the application applicability of NSPS Subpart OOOOa for the new turbines in the Part I review (attached) it states that affected facilities under NSPS Subpart OOOOa include centrifugal compressors with wet seals, and that Transco anticipates the centrifugal compressors associated with the combustion turbines will be equipped with dry gas seals and therefore the requirements for centrifugal compressors with wet seals do not apply to this project. When DAQ asked about this during the August 30, 2024 call, Michael Callegari, in an email on September 3, 2024, confirmed that the new ES-M/L17 and ES-M/L18 centrifugal compressors will be equipped with dry gas seals regarding applicability to 40 CFR Part 60, Subpart OOOOa. Therefore, requirements for centrifugal compressors with wet seals do not apply.

6. Facility-wide Toxics Demonstration

When the Part I permit 09113T15 was written, the facility was a major source of HAPs. At that time, the toxic limits for all sources modeled, except for the sources exempt from air permitting as a 40 CFR Part 63 MACT source in accordance with 15A NCAC 02Q .0711(a)(27)(B), were shown in permit condition 2.2 B.3.a, as discussed in Section 8.B of the attached Part I toxics review for the period after commissioning. Now that the commissioning period is over and the facility is a minor source of HAPs, the Part 63 exemption is lost and toxic limits must be included in the permit for sources ES-M/L17 and ES-M/L18 which are no longer subject to MACT YYYY. These limits are now in Section 2.2 A.2.a of the permit.

As discussed in Section 8 of the Part I review, included as Attachment A below, the combustion turbine (ID No. ES-M/L16) was permitted prior to July 10, 2010, and therefore is still exempt from 15A NCAC 02D .1100 and 02Q .0700 pursuant to 15A NCAC 02Q .0702(a)(18) regardless of its MACT applicability status. Thus, it is not

subject to any emission limitations as presented in Section 2.2 A.2 of the revised permit. Also, as discussed in Section 8 of the Part I review, all MACT sources at that time, except for ES-M/L16, were included in the modeling.

The three generators (ID Nos. AUX-04, AUX-05, and EGEN-01 are all now subject to MACT ZZZZ for area sources and still retain their exemption from 15A NCAC 02Q .0700 pursuant to 15A NCAC 02Q .0711(a)(27)(B). Hence the change in the facility's status from HAP major to minor did not remove the toxics exemption from these sources.

7. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 02Q .0521, a notice of the draft Title V Operating Permit will be published on the DAQ website to provide for a 30-day comment period with an opportunity for a public hearing. Copies of the draft (proposed) permit, review and public notice will be sent to EPA for their 45-day review, to persons on the Title V mailing list, to the Winston-Salem Regional Office, and to the Permittee.

8. Other Requirements

PE Seal

A PE seal is not required since there are no air pollution capture or control systems being added in accordance with 02Q .0112.

Zoning

A consistency determination was received for the Part I application on July 27, 2022, dated July 21, 2022, from Lynn Cochran, Senior Planner with Rockingham County stating they received a copy of the air permit application and the proposed operation is consistent with applicable zoning ordinances.

Compliance Status

The last inspection report by Dylan Wright on April 19, 2024, shows an "informal NOV" which was rescinded. The Company provided evidence that their 2017 ACC was submitted by the due date, but to an inaccurate address. WSRO rescinded the NOV on 7/19/2018.

Compliance History. This facility has not been issued a NOV, NOV, or NOV/NRE in the last five years. Conclusion of inspection is based on review of records and visual observations, this facility appeared to be operating in compliance with Air Quality rules and regulations at the time of this inspection. Although, the current permit states that the new turbines are required to operate a CEMS when the units are operating. This condition does not reflect the regulation properly, thus the need for the permit to reopen for cause to prevent future compliance issues (this is being corrected with this Part II/Reopen for Cause application).

9. Comments on Draft Permit

The draft permit was sent to the Stationary Source Compliance Branch, Applicant and Winston-Salem Regional Office on September 23, 2024.

Transco Comments (email to Ed Martin from Michael Callegari dated October 2, 2024)

One typo edit and request for consideration in the draft condition associated with existing ID No. ES-M/L16 below. 365 days would allow for sequencing of performance testing at other stations in the area to avoid multiple testing contractor mobilizations at compressor stations within the area. (Note, this is in reference to permit condition 2.1 A.2.e).

"e. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit in Section 2.1 A.2.b above on an annual basis by conducting performance testing on combustion turbine (ID No. ES-M/L16) in accordance with a testing protocol approved by the DAQ. Test methods and procedures shall be conducted as specified in 40 CFR 60.335 as applicable. The initial test shall be conducted within ~~180 days~~ 365 days of the issuance of this Title V permit 09113T17 or another date as approved by DAQ. Each ~~subsequent~~ subsequent test shall be conducted within 13 months of the previous stack test. If the results of this test are less than 90 percent of the emission limit in Section 2.1 A.2.b above, the Permittee shall

be required to stack test within 61 months of the previous stack test. If these testing requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.”

Response

This was discussed among Ed Martin, Joe Volker, Rahul Thaker, and Mark Cuilla. Since the 180 days requirement above is our standard condition language, this change cannot be made.

SSCB Comments

No comments were received.

WSRO Comments (in marked up permit from Thomas Gray dated October 7, 2024)

See below.

Response

The following changes were made to the permit for comments received:

- | | |
|---------------------|--|
| Section 2.1 A.2.e | Add to include submittal of reports for initial and subsequent test reports. |
| Section 2.1 A.2.j | Add to include report within 180 days of the issuance of this Title V permit 09113T17 and within 60 days after each subsequent performance test. |
| Section 2.1 B.2.d | Add to include submittal of report for initial performance test. |
| Section 2.1 B.2.m | Revised to submit a written report for the initial performance test not later than 180 days after initial startup. |
| Section 2.1 B.2.o.i | Added that the excess emissions and downtime report applies if the Permittee elects to use NOx CEMS. |

10. Recommendations

TBD

ATTACHMENT A

Review for Application Number: 7900131.22A
Resulting in the Issuance of Permit Number: 09113/T15

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Attachment - Application Review PART I

Issue Date: 04/24/2023

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900131
Inspector's Name: Dylan Wright
Date of Last Inspection: 06/28/2022
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): Transcontinental Gas Pipe Line Company, LLC - Station 160</p> <p>Facility Address: Transcontinental Gas Pipe Line Company, LLC - Station 160 4300 NC 65 Reidsville, NC 27320</p> <p>SIC: 4922 / Natural Gas Transmission NAICS: 48621 / Pipeline Transportation of Natural Gas</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 02D .0516, 02D .0521, 02D .1806 NSPS: 02D .0524 (Subparts KKKK, OOOOa, JJJJ) NESHAP: 02D .1111 (Subparts YYYYY, ZZZZ) PSD: NA PSD Avoidance: 02Q .0317 for avoidance of 15A NCAC 02D .0530 MACT Avoidance: NA NC Toxics: 02D .1100 112(r): NA Other: NA</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> <p>Joseph Page Sr. Operations Manager (336) 361-3003 4300 NC Highway 65 Reidsville, NC 27320</p>	<p style="text-align: center;">Authorized Contact</p> <p>Glen Jasek VP GM, Eastern Interstates (713) 215-2134 2800 Post Oak Blvd, Suite 900 Houston, TX 77056+6147</p>	<p style="text-align: center;">Technical Contact</p> <p>Michael Callegari Senior Environmental Specialist (832) 794-0612 2800 Post Oak Boulevard, Suite 900 Houston, TX 77056+0612</p>	<p>Application Number: 7900131.22A Date Received: 07/14/2022 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part I Existing Permit Data Existing Permit Number: 09113/T14 Existing Permit Issue Date: 10/26/2022 Existing Permit Expiration Date: 09/30/2027</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2021	0.4200	1447.47	110.49	448.27	23.45	68.56	49.45 [Formaldehyde]
2020	0.2500	1396.78	98.17	414.97	20.40	60.69	43.75 [Formaldehyde]
2019	0.2200	1340.51	73.24	367.30	16.09	44.64	32.18 [Formaldehyde]
2018	0.0700	337.51	32.30	111.94	5.74	17.26	12.45 [Formaldehyde]
2017	0.0300	246.06	27.73	85.82	4.63	14.30	10.31 [Formaldehyde]

<p>Review Engineer: Ed Martin</p> <p>Review Engineer's Signature: _____</p> <p>Date: 04/24/2023</p>	<p align="center">Comments / Recommendations:</p> <p>Issue 09113/T15</p> <p>Permit Issue Date: 04/24/2023</p> <p>Permit Expiration Date: 09/30/2027</p>
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1. Purpose of Application

Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of The Williams Companies, Inc., submitted an application for Compressor Station 160 located approximately 7 miles west of Reidsville in Rockingham County, for the following modifications:

At Compressor Station 160, Transco plans to retire the following:

- 15 existing two-stroke, lean-burn (2SLB) mainline compressor engines (ES-M/L1 through ES-M/L15)
- Boiler (ES-BLR2)
- Three existing emergency-use generator engines (ES-AUX1 through ES-AUX3)
- One air compressor engine (ES-A/C1)

The following new sources will be installed:

- Two natural gas-fired Solar Titan 130-23502S combustion turbines (ES-M/L17 and ES-M/L18)
- Three natural gas-fired four-stroke, lean-burn (4SLB) generator engines, one of which will be an emergency-use unit (EGEN-01), and two will be non-emergency units (AUX-04 and AUX-05)

The existing natural gas-fired dry low NO_x combustion turbine (ES M/L16) will remain in the permit.

As part of this modification, Transco also plans to add ancillary equipment (insignificant activities), which includes the following:

- M/L16CB Compressor Blowdowns
- M/L17CB Compressor Blowdowns
- M/L18CB Compressor Blowdowns
- TANK-01 Natural gas condensate liquid storage tank
- TANK-02 Oily Wastewater Storage Tank
- TTLO Tank truck loadout (condensate and oily wastewater)
- FUGS Piping Component Fugitives
- SHB Suction Header Blowdowns
- DHB Discharge Header Blowdowns

The facility currently operates under Title V Operating Permit No. 09113T14, issued by the North Carolina Department of Environmental Quality (NCDEQ) on October 26, 2022.

In the application, Transco requested that this application be reviewed and processed according to the two-step procedure in rule 15A NCAC 02Q .0504. However, since they requested a change from a major HAP to an area source of HAPs, because HAPs are being reduced below the major source thresholds, it would need to go through public notice and therefore was changed to a one-step major modification. Then, when it was realized that the facility would be operating for a period of time during the transition period with both the new and existing sources operating, Transco was notified on August 30, 2022 (see chronology in Section 3 below) that HAPS would not drop below the major source thresholds at this time and they said to leave the facility as a major HAP for now because the existing plus new equipment operating together during the overlapping transition period would exceed 10/25 tpy of HAP. So, it was changed back to a TV-Sign-501(b)(2) Part I. Accordingly, this is Part I of the two-step procedure being processed in accordance with 15 NCAC 02Q .0501(b)(2) for a significant modification that would not contravene or conflict with a condition in the existing permit set forth in 15A NCAC 02Q .0504. A complete Part II application is required to be filed within 12

months after commencing operation of the new equipment to modify the permit to meet the Title V requirements Section 15A NCAC .0500. Public notice is not required at this time but will be required when the Part II application is submitted.

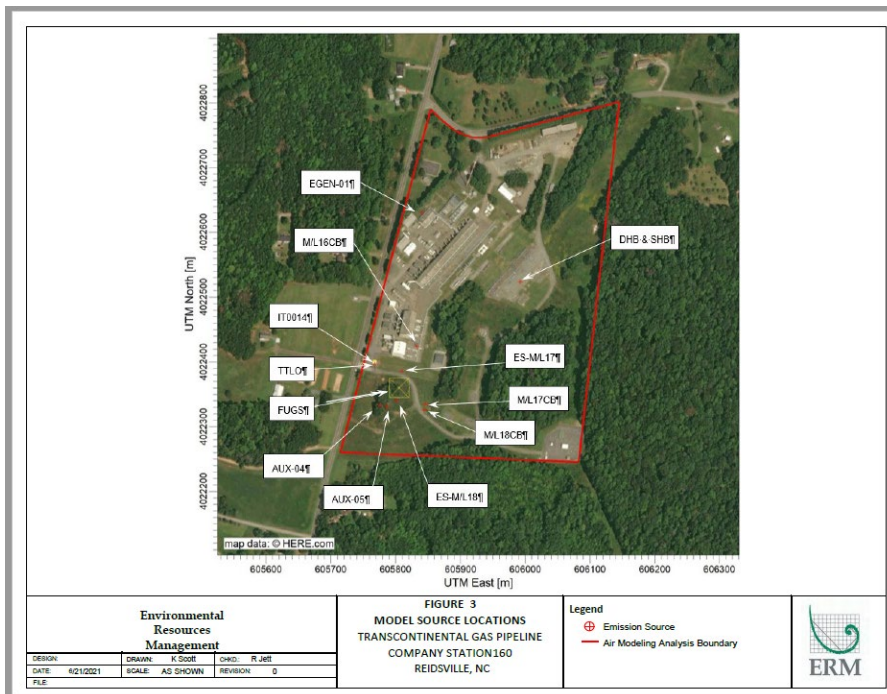
There will be a period of approximately 1-2 months when some of the existing legacy sources shown above as being retired could operate while the newly-installed NG-fired turbine compression replacement equipment above is commissioned. The commissioning process involves intermittent runtime testing of the new replacement turbines for proper functionality while some of the existing legacy compression equipment operates to ensure natural gas flow across the station to be transported along the Transco interstate pipeline system before the new turbines are placed into operational service. Therefore, the sources shown above as being retired will be removed from the permit at the time the Part II application is processed.

2. Facility Description

Transco Compressor Station 160 is a natural gas compressor station that operates under Standard Industrial Classification (SIC) code 4922 and North American Industry Classification System (NAICS) code 486210 and delivers natural gas through a 10,000-mile interstate transmission pipeline system extending from south Texas to New York City, transporting approximately 15% of the nation’s natural gas with 57 stations.

Compressor Station 160 is an existing major source with respect to both the Prevention of Significant Deterioration (PSD) and Title V permitting programs. Once these planned modifications become operational, after completion of the Part II Title V process, it is anticipated that the facility will continue to operate under the Title V permitting program but will be minor with respect to PSD. The project will result in a significant reduction of the facility’s potential to emit.

Arrangement of the new sources are shown in the figure below for toxic modeling purposes as discussed in Section 8.



3. Application Chronology

July 14, 2022	Application 7900131.22A was received and considered complete for processing on this date.
August 24, 2022	AQAB modeling after the commissioning period received from Matthew Porter.
August 30, 2022	Sent an email to Michael Callegari asking that since the existing sources will be operating for a period of time before those sources are replaced with the new sources and HAPs are reduced to an area source level, the facility cannot be made an area source as requested in the application. The alternatives are to either: (1) leave the source as a major source of HAPs for now, or (2) put an enforceable PTE limit avoidance condition for 02D .1111 MACT to keep HAP emissions below the major source thresholds.
August 30, 2022	Michael Callegari responded to the above email and stated to leave the station as a major source of HAPs at this point in the permitting process. Ibeam was changed back to a TV-Sign-501(b)(2) Part I.
November 2, 2022	Sent the draft permit to Supervisor.
November 9, 2022	Sent the draft permit to the Stationary Source Compliance Branch, Applicant and Winston-Salem Regional Office.
December 14, 2022	Received Transco's comments on the draft permit from Michael Callegari.
January 6, 2023	A Teams call was held among the Permittee Technical Contact, Michael Callegari, the Permittee's consultant, Kevin Scott, Mark Cuilla, Booker Pullen and Ed Martin to discuss Transco's comments on the draft permit, including among other things, the interim period between retirement of the existing sources and startup of the new sources, the PSD avoidance limits, and toxics modeling.
January 25, 2023	An internal DAQ Teams call was held among Mark Cuilla, Booker Pullen Tom Anderson, Mark Yoder and Ed Martin to discuss whether a toxics risk assessment can be made for sources not included in Transco's modeling, but that will remain in operation during the transition period while both the existing and new equipment will operate, or if additional toxics modeling is needed.
February 3, 2023	An internal DAQ Teams call was held among Mark Cuilla, Booker Pullen and Ed Martin to discuss whether modeling by DAQ or by Transco, or a permit limit to restrict overlapping operation of the new and legacy sources would be the best approach for the toxics risk assessment.
February 8, 2023	A Teams call was held among Michael Callegari, Kevin Scott, Booker Pullen, Mark Cuilla, Mark Yoder, Tom Anderson and Ed Martin to discuss the requirement triggered with the addition of the new sources, to perform a toxics review for any NC air toxics being emitted from the new sources that are in common with the existing legacy equipment and for any new toxics not in common during the transition period (i.e., the time period of potential combined operations, including new equipment conditioning period). DAQ pointed out that even though the MACT sources are exempt per rule from any air toxics demonstration by the applicant, DAQ is required to perform a health risk assessment. Transco was informed that they are not obligated to model MACT sources but volunteered to do the modeling since they are better equipped, already have the stack parameters, and this would expedite issuance of the permit. The alternative for the toxics risk assessment, using a permit limit to restrict overlapping operation of the new and legacy sources, was also discussed as a possibility.

March 20, 2023 A Teams call was held among Michael Callegari, Kevin Scott, Booker Pullen, Mark Cuilla, Mark Yoder, James Raschke (station manager) and Ed Martin to discuss Transco's modeling for the commissioning period to be submitted soon. The results of the modeling indicated a toxics restriction is needed to keep some of the existing legacy sources from operating after any of the new sources begin operation.

March 21, 2023 Received Transco's supplemental modeling for the commissioning period.

March 29, 2023 AQAB modeling memo for the commissioning period received from Justin McKee.

March 31, 2023 Sent the revised draft permit to Supervisor.

April 12, 2023 Sent revised draft permit to Transco for final review.

April 17, 2023 A Teams call was held among Michael Callegari, Kevin Scott, Booker Pullen, Mark Cuilla, Chris Rumer and Ed Martin to discuss Transco's final review of the draft permit and the next step for application submittal for revising the permit after all legacy sources have been retired.

April 24, 2023 Permit was issued.

4. Permit Changes

The following changes were made to Air Permit No. 09113T14:*

Page No.	Section	Description of Changes
Cover Letter	N/A	Amended permit numbers and dates.
4-5	1, table	Removed source BDO. Added sources ES-M/L17, ES-M/L18, AUX-04, AUX-05, and EGEN-01. Added footnote 1.
6	2.1 A, regulation table	Added 02D .0524 (40 CFR Part 60, Subpart OOOOa)
10	2.1 B, regulation table	Added 02D .0524 (40 CFR Part 60, Subpart OOOOa)
12	2.1 C, regulation table	Added 02D .0524 (40 CFR Part 60, Subpart OOOOa)
13 Old page	2.1 D Old section	Removed this section for the Natural Gas Pipeline Blowdown Operations (ID No. ES-BDO) as this source has been included as insignificant activities in Section 3.
18-23	2.1 E	Added this section for two natural gas-fired Solar Titan 130 combustion turbines with dry low NOx (ID Nos. ES-M/L17 and ES-M/L18).
24-30	2.1 F	Added this section for two four-stroke lean-burn natural gas-fired auxiliary generators (ID Nos. AUX-04 and AUX-05).
31-33	2.1 G	Added this section for one four-stroke lean-burn natural gas-fired emergency generator (ID No. EGEN-01).
36-38	2.2 B	Added to this section: <ul style="list-style-type: none"> • Section 2.2 B.2 and 2.2 B.3 for 02D .1100 • Section 2.2 B.4 for 02Q .0711
39	2.2 C	Added this section for: <ul style="list-style-type: none"> • 02Q .0317 for avoidance of 02D .0530 (PSD) • 02Q .0504
40-42	2.2 D.1	Added this section for: <ul style="list-style-type: none"> • 02D .0524 (40 CFR Part 60, Subpart OOOOa)
43-44	3	Added insignificant activities: I-M/L-16CB, I-M/L-17CB, I-M/L-18CB, I-TANK-01, I-TANK-02, I-TTLO, I-FUGS, I-SHB, and I-DHB.

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

5. Project Emissions

Pipeline natural gas enters the facility via Transco's existing pipeline and then passes through filter separation to remove any small amounts of entrained water and hydrocarbon liquids that may accumulate. The water and hydrocarbon liquids removed during filter separation are then routed to the natural gas condensate liquid storage tank and trucked offsite as needed. The filter-separated natural gas then undergoes recompression by the three natural gas-fired combustion turbine-driven compressor units where it is pressurized and discharged to the pipeline to be transported to market.

The compressor station is also equipped with station suction, station discharge, and unit piping routed to blowdown vent stacks for managed blowdowns when necessary due to compressor starts and stops and maintenance-related requirements associated with equipment in natural gas service (e.g. compressors, suction

header piping, and discharge header piping). Start-up and shutdown operations occur periodically based on market demand and maintenance-related requirements to ensure the protection of the equipment and safety of operations personnel.

The oily wastewater storage tank stores oily wastewater from process equipment such as the gas turbines, compressors, and vessels that may accumulate used oil and water from equipment operation and maintenance activities. The oily wastewater is trucked offsite as-needed.

Two natural gas-fired auxiliary generators will provide on-demand back-up power for the station's operational electrical needs and one emergency use-only natural gas-fired generator will be used to provide power in the event of a power outage for the main office building. Fugitive emissions are also expected to occur from piping components in natural gas service.

The individual emission sources are described as follows:

Natural Gas-Fired Solar Combustion Turbines

Normal Operation

The Solar Titan 130-23502S natural gas-fired combustion turbines will be equipped with Solar's dry-low nitrogen oxide (NO_x) combustion technology (SoLoNO_x™) and will be capable of achieving the following exhaust gas concentrations while in SoLoNO_x™ mode:

- 9 parts per million by volume (dry basis) (ppmvd) at 15% oxygen (O₂) for NO_x
- 10 ppmvd at 15% O₂ for carbon monoxide (CO)
- 25 ppmvd at 15% O₂ for unburned hydrocarbons (UHC)
- 91 ppmvd at 15% O₂ for formaldehyde

Emission calculations for the combustion turbines during normal operation were based on the maximum predicted horsepower (HP) and fuel flow ratings provided in Solar's Summary of Engine Exhaust Analysis at 100% load and 0 degrees Fahrenheit (°F). The lb/hr and tpy emission calculations for NO_x, CO, UHC, and formaldehyde were obtained from Solar's Summary of Engine Exhaust Analysis. UHC emissions were converted to volatile organic compound (VOC) emissions by applying Solar's recommended 20% conversion factor provided in Product Information Letter (PIL) 168. The remaining 80% of the UHC was assumed to be methane (CH₄). Emission calculations for particulate matter (PM₁₀ and PM_{2.5}) and sulfur dioxide (SO₂) were based on emission factors obtained from Table 3.1-2a of the US Environmental Protection Agency's (EPA) *Compilation of Air Emission Factors (AP-42)*. Solar's Summary of Engine Exhaust Analysis and PILs are provided in Appendix D. Emission calculations for hazardous air pollutants (HAP), except formaldehyde, were estimated using emission factors obtained from Table 3.1-3 of AP-42. The formaldehyde emission factor used for the turbines is 4.00E-02 lb/hr (or 2.00E-04 lb/mmBtu at the 199.77 mmBtu/hr HHV fuel flow rate) versus the AP-42 factor of 7.1E-04 in AP-42 Table 3.1-3 for natural gas fired combustion turbines. EPA has issued guidance that vendor guarantees are a better indicator of actual emissions compared to emission factors in AP-42.

Emission calculations for greenhouse gases (GHGs) were estimated using emission factors obtained from Solar's Exhaust Gas Analysis, Solar's PIL 168, and 40 CFR Part 98 Subpart C. The carbon dioxide equivalent (CO_{2e}) emissions were determined by applying the global warming potentials (GWPs) obtained from 40 CFR Part 98 Subpart A.

Start-Up and Shutdown Operations

Emission calculations for the Solar Titan 130 combustion turbines during start-up and shutdown operations were estimated using a conservative number of events per year based on operational knowledge and NO_x, CO, UHC, VOC and carbon dioxide (CO₂) emission factors obtained from Solar's Product Information Letter (PIL) 170. Emission factors for CH₄ were obtained from Solar's PIL 168. Solar's emission factors are based on 10-minute start-up and shutdown events; however, to be conservative, and based on operational knowledge, the start-up and shutdown event durations were increased to 15 minutes per event and a factor of 1.5 was applied to Solar's emission factors. SO₂, PM₁₀, PM_{2.5}, and nitrous oxide (N₂O) emissions are a function of fuel content and are expected to be equivalent to the normal emissions rates. HAP during normal operation. Solar's PIL

170 is provided in Appendix D of the application. The Solar Titan 130 combustion turbines will be equipped with electric starters.

Natural Gas-Fired Auxiliary and Emergency Generator Engines

Transco plans to install two natural gas-fired lean burn Caterpillar G3512 auxiliary generators (AUX-04 and AUX-05), each rated at 1468 hp, and one natural gas-fired lean burn emergency-use generator (335 hp). The emission calculations for NO_x, CO, and VOC (excluding formaldehyde) are based on federal standards provided in Table 1 of New Source Performance Standard (NSPS) Subpart JJJJ. Emission calculations for PM₁₀, PM_{2.5}, SO₂, and HAPs are based on emission factors obtained from Table 3.2-2 in the US EPA's AP-42. The AP-42 SO₂ emission factor was conservatively adjusted using a ratio of 1.0/0.2 grains of sulfur per 100 standard cubic feet (scf) conversion based on Transco's typical natural gas quality.

Emission calculations for GHGs were estimated using emission factors obtained from 40 CFR Part 98 Subpart C. The emission factor for CO₂ was obtained from Table C-1 and the emission factors for CH₄ and N₂O were obtained from Table C-2. The CO₂e emissions were determined by applying the GWPs obtained from 40 CFR Part 98 Subpart A. Potential emission calculations for the two non-emergency units are representative of continuous operation for 8,760 hours per year. The potential emissions from the emergency-use generator are based on operating 500 hours per year.

Natural Gas Condensate Liquid Storage Tank, Oily Wastewater Storage Tank, and Tank Truck Loadout Operations

Emission calculations for the natural gas condensate liquid storage tank and associated tank truck loadout were estimated using ProMax simulation (version 5.0.21190.0), a representative natural gas analysis, and conservative process temperatures and pressures. The ProMax simulation includes working, breathing, flashing, and loading emission estimates. The natural gas condensate liquid storage tank emissions and associated tank truck loading are provided in the detailed emissions calculations in Appendix C of the application. The ProMax output report is provided in Appendix D of the application. Potential emissions from the condensate liquid storage tank and the condensate truck loading qualify as insignificant activities as defined in 15A NCAC 2Q.0503(8).

Emission calculations for the oily wastewater storage tank were estimated using the Mitchell Scientific program, Emission Master. Emission calculations for the oily wastewater tank truck loading were estimated using the results of Emission Master and the loading loss equations from AP-42, Chapter 5, Section 5.2 (Transportation and Marketing of Petroleum Products). Detailed emissions calculations for the oily wastewater storage tank and associated tank truck loading are provided in Appendix C of the application. The Emission Master output report is also provided in Appendix C of the application. Potential emissions from the oily wastewater storage tank and the oily wastewater tank truck loading qualify as insignificant activities as defined in 15A NCAC 2Q.0503(8).

Piping Component Fugitive Emissions

At this time, the Project design has not been finalized and the exact number of fugitive components is not available. In lieu of the exact component count, fugitive emissions from the station's piping components are conservatively estimated using a representative component count from another station along Transco's pipeline and scaled based on facility HP capacity. The total organic carbon (TOC) emission factors were obtained from the US EPA's *Protocol for Equipment Leak Emission Estimates*. For components in gas service, VOC, HAP, and GHG emissions were estimated by applying component weight fractions obtained from monthly natural gas chromatograph readings from Compressor Station 160. For components in light liquid service, VOC, HAP, and GHG emissions were estimated by applying component weight fractions from a natural gas condensate liquids composition derived from ProMax simulation. Potential emissions from equipment/component leaks qualify as an insignificant activity/source as defined in 15A NCAC 2Q .0503(8).

Natural Gas Venting Operations

In accordance with US Department of Transportation (DOT) requirements, the proposed modifications for the compressor station will be equipped with an emergency shutdown (ESD) system that blocks natural gas out of the station and blows it down the station piping. The station will also be equipped with pressure relief devices (or other suitable protective devices) to ensure the maximum operating pressure is not exceeded. The ESD

system and pressure relief devices (or other suitable protective devices) are required to be inspected and tested on an annual basis. Transco will conduct annual ESD system testing in accordance with the applicable US DOT requirements and will utilize double valve systems on the blowdown system to significantly reduce the volume of natural gas released during these required tests. In addition, natural gas blowdowns will occur when necessary due to compressor starts, stops, and maintenance-related requirements associated with equipment in natural gas service. These natural gas blowdowns will be directed to blowdown stacks equipped with silencers. Emissions from natural gas venting activities were estimated by applying component weight fractions obtained from monthly natural gas chromatograph readings from the station. These emissions include natural gas venting associated with station suction and discharge header piping blowdowns and blowdowns from the turbine-driven compressors. In addition, the small quantities of natural gas directed to the blowdown silencers during the annual ESD system testing are also accounted for in the emission estimates. The blowdowns for existing equipment and operations are currently permitted as a single grouped source ES-BDO with a PSD avoidance emissions cap of 40 tpy VOC. With this project, Transco requested that this source be redefined in the permit as separate blowdown insignificant activities for each compressor (M/L-16CB, M/L-17CB and M/L-18CB) plus the suction header and discharge header (SHB and DHB) since they are not interdependent. The redefined potential-to-emit qualifies each as an insignificant activity in accordance with 15A NCAC 02Q .0503(8) and negates the need for the 40 tpy VOC emissions cap. Potential VOC emissions from these insignificant activities are:

SHB	0.49 tpy
DHB	0.43 tpy
M/L16CB	0.11 tpy
M/L16CB	0.11 tpy
M/L16CB	0.11 tpy

6. PSD Applicability

The facility is located in Rockingham County, which is currently in attainment (or unclassified) with the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. Therefore, with respect to the federal New Source Review (NSR) permitting program, only PSD requirements potentially apply. PSD applies both to new major stationary sources and to major modifications to existing major stationary sources. Major stationary sources are defined in 40 CFR 51.166 as follows:

- Any of the 28 listed stationary source categories of air pollutants that emits, or has the potential to emit, 100 tons per year or more of any pollutant subject to regulation under 40 CFR 52.21; or
- Any stationary source, other than one of the 28 listed stationary source categories, that emits, or has the potential to emit, 250 tons per year or more of any air pollutant subject to regulation under 40 CFR 51.166.

Compressor Station 160 is an existing major stationary source with respect to the PSD permitting program (for stationary sources other than one of the 28 listed source categories) as the facility has the potential to emit 250 tpy or more of NO_x, CO, and VOC emissions.

An applicability analysis was performed to determine whether the project would be a major PSD modification as a result of an emission increase of any regulated NSR pollutant above the applicable significance levels listed in 40 CFR 51.166(b)(23)(i). The PSD applicability analysis evaluated all PSD-regulated air pollutants to be emitted, including PM (filterable), PM₁₀, PM_{2.5}, NO_x, SO₂, CO, VOCs, and carbon dioxide as CO₂.

The PSD requirements apply to any project at an existing major stationary source in an area designated as attainment or unclassifiable.

A project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases - a *significant emissions increase* (as defined in 40 CFR 51.166(b)(39)), and a *significant net emissions increase* (as defined in 40 CFR 51.166(b)(3) and (b)(23)). A project is not a major modification if it does not cause a *significant emissions increase*. If a project does cause a significant emissions increase, then the project is a major modification only if it also results in a *significant net emissions increase*.

For the Transco project, the procedure for calculating whether a *significant emissions increase* (i.e., the first step of the process) will occur is based on the applicable provisions in 40 CFR 51.166 paragraphs (a)(7)(iv)(c) through (f) as discussed below for the new units and the existing units being shut down. The procedure for calculating whether a *significant net emissions increase* will occur at the source (i.e., the second step of the process) is contained in 40 CFR 51.166 paragraphs (b)(3) and (b)(23), where any other increases and decreases in actual emissions that are contemporaneous with the particular change are considered.

A major modification results if the project causes a *significant emissions increase* and a *significant net emissions increase*. However, in this case, the project does not result in a *significant emissions increase* and therefore it is not necessary to proceed to the second step of the process to determine whether there is a *significant net emissions increase*.

PSD Applicability Test for New Units

For the two new Solar Titan 130-23502S combustion turbines (ES-M/L17 and ES-M/L18) and three new generator engines (EGEN-01, AUX-04 and AUX-05), the *actual-to-potential test* is used in accordance with 40 CFR 51.166(a)(7)(iv)(d) to compare the difference between the *potential to emit* from each new emissions unit following completion of the project and the *baseline actual emissions* as follows:

Potential to Emit

In accordance with 15A NCAC 2D .0530(b)(4), *potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

Baseline Actual Emissions

In accordance with 15A NCAC 2D .0530(b)(1)(B), for a new emissions unit the *baseline actual emissions* shall equal zero and thereafter, for all other purposes, shall equal the unit's potential to emit.

PSD Applicability Test for Units Being Shut Down

For the existing units being shut down, the *actual-to-projected-actual applicability test* is used in accordance with 40 CFR 51.166(a)(7)(iv)(c) to compare the difference between the *projected actual emissions* (as defined in 40 CFR 51.166(b)(40)) and the *baseline actual emissions*.

Projected Actual Emissions

In this case, these existing units are being shut down and therefore the projected actual emissions are zero and the decrease is due only to the baseline actual emissions.

Baseline Actual Emissions

In accordance with 15A NCAC 2D .0530(b)(1)(A), *baseline actual emissions* for an existing emissions unit are calculated as the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the five-year period immediately preceding the date that a complete permit application is received. However, the Director shall allow a different time period, not to exceed 10 years immediately preceding the date on which a complete permit application is received by the Division, if the owner or operator demonstrates that it is more representative of normal source operation. In accordance with 15A NCAC 2D .0530(b)(1)(a)(v), for a regulated NSR pollutant, if a project involves multiple emissions units, only one consecutive 24-month period shall be used to determine the baseline actual emissions for all the emissions units being changed. A different consecutive 24-month period for each regulated NSR pollutant may be used for each regulated NSR pollutant.

For decommissioning of the existing 15 mainline units, three auxiliary generators, and air compressor; as a conservative approach Transco has used a five-year period preceding the date of the permit application submission in lieu of using a 10-year lookback period as allowed per regulation; for calculating baseline

emissions. The consecutive 24-month baseline period for actual emissions is from January 2020 to December 2021. See "Baseline Actual Emissions" in Appendix C of the application for additional details.

As an example of how the numbers in Table 1 below were determined, the Net Emissions Change for NOx is calculated as follows:

The total Project Emissions Increases of 82.70 tpy are the potential emissions from the new sources (ES-M/L17, ES-M/L18, EGEN-01, AUX-04, and AUX-05) as shown on page 1 in Appendix C of the application. The contribution to this number for the potential NOx emissions, for example, for ES-M/L17 of 26.19 tpy are taken from page 5 of Appendix C using the Solar Exhaust Analysis emission factor of 6.06 lb/hr as shown on the third page of the Solar specification sheet in Appendix D of the application at the potential operation of 8760 hrs/yr as follows:

$$\frac{(6.06 \text{ lb/hr}) \times (8760 \text{ hrs/yr})}{(2000 \text{ lb/ton})} = 26.54 \text{ tpy (with some rounding error versus the 26.19 tpy above)}$$

The Actual Emissions Decreases from the Project for the sources being shutdown (ES-M/L1 through ES-M/L15, ES-BLR2, ES-AUX1 through ES-AUX3, and ES-A/C1) are the Baseline Actual Emissions of 1416.91 tpy for the rolling 24-month consecutive baseline period (January 2020 to December 2021) as taken from Appendix C, pages 1 and 2 of the PSD Netting Analysis Summary.

Therefore, the Net Emissions Change for NOx in Table 1 is:

$$\text{Project Emissions Increases} - \text{Actual Emissions Decreases from the Project} = \text{Net Emissions Change}$$

$$82.70 \text{ tpy} - 1416.91 \text{ tpy} = -1334.21 \text{ tpy}$$

As shown in Table 1 below, the calculations demonstrate that the PSD requirements are not triggered because the project does not result in a *significant emissions increase*. Appendix C of the application contains the project emissions calculations. Note that this PSD applicability analysis covers both this Part I application and the Part II application to be submitted within one year from the date of beginning operation of any of the new sources (see Section 7.E.1 below).

Table 1 – PSD Applicability Analysis, tons per year

Regulated NSR Pollutant	Project Emissions Increases ¹	Actual Emissions Decreases from the Project ^{2,3}	Net Emissions Change	PSD Significant Emissions Rate	Significant Project Emissions Increase? ⁴	Subject to PSD Review?
NOx	82.70	1,416.91	-1,334.21	40	No	No
CO	102.41	426.50	-324.09	100	No	No
VOC	34.13	Not needed since the emission increases alone for these pollutants are below PSD significance		40	No	No
SO ₂	6.27			40	No	No
PM	12.63			25	No	No
PM10	12.63			15	No	No
PM2.5	12.63	21.33	-8.70	10	No	No
CO ₂ e	211,714	NA ⁴	NA	75,000	NA	No

¹ The project emissions increases are the potential emissions from the new sources.

² The emission decreases from the project are the baseline actual emissions for the existing sources being shutdown in accordance with 40 CFR 51.166(b)(47)(ii). As a conservative approach Transco has identified a five-year period preceding the date of this permit application submission in lieu of using a 10-year lookback period as allowed per regulation.

³ The 24-month baseline period for actual emissions is from January 2020 to December 2021. The baseline actual emissions decreases include the decommissioning of 15 mainline units, three auxiliary generators, and one air compressor.

⁴ Per the PSD regulations of 40 CFR 51.166, GHG emissions are subject to PSD regulation only if the project is already subject to PSD for another regulated NSR pollutant. Therefore, baseline CO₂e emissions for the project were not needed and the project is not a major modification under NSR permitting procedures.

7. Regulatory Evaluation

Individual New Sources (Sections A, B and C below)

The following are the applicable source-by-source requirements for the individual new sources:

A. Two natural gas-fired Solar Titan 130-23502S combustion turbines (ES-M/L17 and ES-M/L18)

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Monitoring/Recordkeeping/Reporting

No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart KKKK, "Standards of Performance for Stationary Combustion Turbines", including Subpart A "General Provisions."

This subpart applies to stationary combustion turbines with a heat input capacity greater than or equal to 10 million British thermal units per hour which commenced construction, modification, or reconstruction after February 18, 2005.

Emission Limitations

The proposed combustion turbines will combust only pipeline natural gas and will have a heat input rating between 50 and 850 MMBtu/hr. Therefore, NO_x emissions from each combustion turbine shall not exceed 25 ppm at 15 percent O₂ as shown in 40 CFR Part 60 Subpart KKKK, Table 1.

SO₂ emissions from the combustion turbines shall not exceed 0.060 pounds per million Btu heat input (fuel sulfur content limit) as shown in 40 CFR 60.4330(a)(2).

Testing

The Permittee shall demonstrate compliance with the NO_x emission limits above by conducting an initial performance test as required by 40 CFR 60.8 and 40 CFR 60.4400, in accordance with General Condition JJ within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup (initial firing) for each combustion turbine.

Monitoring/Recordkeeping

The Permittee shall operate and maintain the combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction.

The Permittee shall comply with the following NO_x monitoring and recordkeeping requirements:

- The Permittee shall install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) consisting of NO_x and O₂ monitors, to determine the hourly NO_x emission rate in parts per million (ppm).
- The CEMS shall meet the installation, certification and operating requirements of 40 CFR 60.4345.
- Hourly average NO_x emission rates shall be calculated pursuant to 40 CFR 60.4350(a) through (f). The hourly average NO_x emission rates shall be used to assess excess emissions on a 30-unit operating day rolling average basis, as described in 40 CFR 60.4380(b)(1).

The Permittee shall demonstrate compliance with the applicable SO₂ emission limit by using the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and has the potential sulfur emissions of less than 0.060 pounds SO₂ per million Btu heat input.

Reporting

The Permittee shall submit a notification of the date of construction of an affected facility is commenced postmarked no later than 30 days after such date, a notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date, and shall provide the DAQ at least 30 days prior notice of any performance test.

The Permittee shall submit a written report of the results of each initial performance test required in 40 CFR 60.8 before the close of business on the 60th day following the completion of the performance test, and a written report of the results of each annual performance test before the close of business on the 60th day following the completion of the performance test, and a semiannual summary report of monitoring and record keeping activities.

The Permittee shall submit a summary report of the fuel purchase contracts, tariff sheets or transportation contracts.

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Maximum Achievable Control Technology (MACT) as promulgated in 40 CFR 63, Subpart YYYY "National Emission Standards of Hazardous Air Pollutants for Stationary Combustion Turbines" and Subpart A "General Provisions."

Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations. These are new natural gas-fired turbines. A stationary combustion turbine is new if construction is commenced after January 14, 2003. If a new stationary combustion turbine starts up, which is a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined in Subpart YYYY after March 9, 2022, the affected source must comply with the emissions limitations and operating limitations upon startup. This subpart applies to stationary combustion turbines with a rated peak power output of 1.0 megawatt (MW) or more which is located at a major source of HAP.

General Provisions

The Permittee must comply with the applicable General Provisions in 40 CFR 63 Subpart A as shown in Table 7 of 40 CFR 63 Subpart YYYY.

Emission Standards

The Permittee shall limit the concentration of formaldehyde to 91 ppbvd or less at 15-percent O₂, except during turbine startup as shown in Table 1 of 40 CFR 63 Subpart YYYY. The period of time for turbine startup is subject to the limits specified in the definition of startup in 40 CFR 63.6175.

Operating Limitations

For each stationary combustion turbine that is required to comply with the emission limitation for formaldehyde and is using an oxidation catalyst, the Permittee shall maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer as shown in Table 2 of 40 CFR 63 Subpart YYYY. The catalyst inlet temperature data that is recorded during engine startup is not required to be used in the calculations of the 4-hour rolling average catalyst inlet temperature.

For each stationary combustion turbine that is required to comply with the emission limitation for formaldehyde and is not using an oxidation catalyst, the Permittee shall maintain any operating limitations approved by the Administrator.

General Requirements

At all times, the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved.

Performance Testing

- The initial applicable performance tests or other initial compliance demonstrations in Table 4 of 40 CFR 63 Subpart YYYY must be conducted within 180 calendar days after startup and according to the provisions in 40 CFR 63.7(a)(2).
- Subsequent performance tests must be performed on an annual basis as specified in Table 3 of 40 CFR 63 Subpart YYYY.
- The Permittee shall conduct each applicable performance test in Table 3 of 40 CFR 63 Subpart YYYY. Each performance test must be conducted according to the requirements in Table 3 of 40 CFR 63 Subpart YYYY. Performance tests must be conducted at high load, defined as 100 percent plus or minus 10 percent. Performance tests shall be conducted under such conditions based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The Permittee may not conduct performance tests during periods of malfunction. The Permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. Three separate test runs for each performance test must be conducted, and each test run must last at least 1 hour.
- If the stationary combustion turbine is not equipped with an oxidation catalyst, the Administrator must be petitioned for operating limitations that will be monitored to demonstrate compliance with the formaldehyde emission limitation in Table 1 of 40 CFR 63 Subpart YYYY. These operating parameters must be measured during the initial performance test and continuously monitored thereafter. Alternatively, the Administrator may be petitioned for approval of no additional operating limitations. If a petition is submitted under this section, the initial performance test must not be conducted until after the petition has been approved or disapproved by the Administrator.
- If the stationary combustion turbine is not equipped with an oxidation catalyst and the Administrator is petitioned for approval of additional operating limitations to demonstrate compliance with the formaldehyde emission limitation in Table 1 of 40 CFR 63 Subpart YYYY, the petition must include the information described in paragraphs (f)(1) through (5) of 40 CFR 63.6120.
- If the Administrator is petitioned for approval of no additional operating limitations, the petition must include the information described in paragraphs (g)(1) through (7) of 40 CFR 63.6120.

Monitoring

- If the stationary combustion turbine is required to comply with the formaldehyde emission limitation and is equipped with an oxidation catalyst emission control device, the catalyst inlet temperature must be monitored on a continuous basis in order to comply with the operating limitations in Table 2 of 40 CFR 63 Subpart YYYY and as specified in Table 5 of 40 CFR 63 Subpart YYYY.
- If the stationary combustion turbine is required to comply with the formaldehyde emission limitation and is not equipped with an oxidation catalyst, any parameters specified in the approved petition to the Administrator must be continuously monitored in order to comply with

the operating limitations in Table 2 of 40 CFR 63 Subpart YYYY and as specified in Table 5 of 40 CFR 63 Subpart YYYY.

- If a continuous monitoring system (CMS) required, a CMS quality control program that includes written procedures for CMS according to 40 CFR 63.8(d)(1) through (2) must be developed and implemented. Written procedures must keep on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).

Initial Compliance

- The Permittee shall demonstrate initial compliance with the average formaldehyde concentration specified in Table 1 of 40 CFR 63 Subpart YYYY.
- The Notification of Compliance Status must be submitted containing results of the initial compliance demonstration according to the requirements in 40 CFR 63.6145(f).

Continuous Compliance

- Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), all parametric monitoring must be conducted at all times the stationary combustion turbine is operating.
- Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. All data collected during all other periods must be used in assessing the performance of the control device or in assessing emissions from the stationary combustion turbine.
- The Permittee shall demonstrate continuous compliance with each emission limitation and operating limitation in Table 1 and Table 2 of 40 CFR 63 Subpart YYYY according to methods specified in Table 5 of 40 CFR 63 Subpart YYYY.
- Each instance in which each emission limitation or operating limitation was not met must be reported. Also, each instance in which the applicable requirements in Table 7 of 40 CFR 63 Subpart YYYY was not met must be reported. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.6150.

Notifications

- All applicable notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), 40 CFR 63.8(f)(4), and 40 CFR 63.9(b) and (h) must be submitted by the dates specified.
- As specified in 40 CFR 63.9(b), an Initial Notification must be submitted no later than 120 calendar days after the combustion turbine becomes subject to 40 CFR 63 Subpart YYYY.
- A notification of intent to conduct an initial performance test must be submitted at least 60 calendar days before the initial performance test is scheduled to begin as required in 40 CFR 63.7(b)(1).
- A Notification of Compliance Status must be submitted according to 40 CFR 63.9(h)(2)(ii). For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, the Notification of Compliance Status must be submitted, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test.

Recordkeeping

- The Permittee must keep the following records:

- A copy of each notification and report submitted to comply with 40 CFR 63 Subpart YYYY, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
- Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- Records of all maintenance on the air pollution control equipment as required in 40 CFR 63.10(b)(2)(iii).
- Records of the date, time, and duration of each startup period, recording the periods when the affected source was subject to the standard applicable to startup.
- Records as follows.
 - Record the number of deviations. For each deviation, record the date, time, cause, and duration of the deviation.
 - For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.
 - Record actions taken to minimize emissions in accordance with 40 CFR 63.6105(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- The records required in Table 5 of 40 CFR 63 Subpart YYYY must be kept to show continuous compliance with each applicable operating limitation.
- Any records required to be maintained by 40 CFR 63 Subpart YYYY that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.
- All applicable records must be maintained in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1).
- As specified in 40 CFR 63.10(b)(1), each record must keep for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- Records of the most recent 2 years must be retained on site or records must be accessible on site. Records of the remaining 3 years may be retained off site.

Reporting

- *Compliance report.* A semiannual compliance report must be submitted according to Table 6 of 40 CFR 63 Subpart YYYY. The semiannual compliance report must contain the information described in paragraphs (a)(1) through (5) of 40 CFR 63.6150. The semiannual compliance report, including the excess emissions and monitoring system performance reports of 40 CFR 63.10(e)(3), must be submitted by the dates specified below, unless the Administrator has approved a different schedule. Once the reporting template has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 180 days, all subsequent reports must be submitted to the EPA following the procedure specified in 40 CFR 63.6150(g).
- Dates of submittal for the semiannual compliance report are as follows:
 - The first semiannual compliance report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in 40 CFR 63.6095.
 - The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6095.
 - Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

- For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the first and subsequent compliance reports may be submitted according to the dates the permitting authority has established instead of according to the dates in paragraphs ii(A) through (4) above.
- Dates of submittal for the annual compliance report are as follows:
 - The first annual report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on December 31.
 - The first annual report must be postmarked or delivered no later than January 31.
 - Each subsequent annual report must cover the annual reporting period from January 1 through December 31.
 - Each subsequent annual report must be postmarked or delivered no later than January 31.
 - For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the first and subsequent compliance reports may be submitted according to the dates the permitting authority has established instead of according to the dates in paragraphs iii(A) through (4) above.
- *Performance test report.* Within 60 days after the date of completing each performance test required by 40 CFR 63 Subpart YYYYY, the results of the performance test must be submitted (as specified in 40 CFR 63.6145(f)) following the procedures specified in 40 CFR 63.6150(f)(1) through (3).
- If reports are required to be submitted following the procedure specified in 40 CFR 63.6150(g), the reports must be submitted to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>).
- If reports are required to be submitted electronically through CEDRI in the EPA's CDX, a claim of EPA system outage may be asserted for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, the requirements outlined in paragraphs (h)(1) through (7) of 40 CFR 63.6150 must be met.
- If reports are required to be submitted electronically through CEDRI in the EPA's CDX, a claim of force majeure may be asserted for failure to timely comply with the reporting requirement. To assert a claim of force majeure, the requirements outlined in paragraphs (i)(1) through (5) of 40 CFR 63.6150 must be met.

B. Two natural gas-fired auxiliary generators (ID Nos. AUX-04 and AUX-05)

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Monitoring/Recordkeeping/Reporting

No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

Visible emissions from these sources shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

Monitoring/Recordkeeping/Reporting

No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources.

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS
 New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart JJJJ
 “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines,” including
 Subpart A "General Provisions."

These sources are subject to this subpart in accordance with 60.4230(a)(4)(i), for owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP).

General Provisions

The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 3 of 40 CFR 60 Subpart JJJJ.

Emission Standards

The Permittee shall comply with the following emission standards:

Engine type	Maximum engine power	Manufacture date (after)	Emission standards		
			g/HP-hr (ppm)		
			NO _x	CO	VOC
Non-Emergency SI Lean Burn Natural Gas	500≤HP<1,350	7/1/2010	1.0 (160)	2.0 (540)	0.7 (86)

Compliance Requirements

The Permittee shall comply with the emission standards by:

- purchasing an engine certified according to the procedures in 40 CFR 60 Subpart JJJJ for its respective model year, and
- operate and maintain the certified stationary spark ignition SI internal combustion engine (ICE) and control device according to the manufacturer's emission-related written instructions. The Permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the Permittee.

The Permittee shall operate and maintain the stationary SI ICE that achieve the above required emission standards over the entire life of the engine.

If applicable, air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

Recordkeeping

The Permittee shall keep the following records:

- All notifications submitted to comply with 40 CFR 60 and all documentation supporting any notification.
- Maintenance conducted on the engine.
- If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

Reporting and Notifications

- The Permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.
- The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities.

4. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Maximum Achievable Control Technology (MACT) as promulgated in 40 CFR 63 Subpart ZZZZ “National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines” and Subpart A “General Provisions.” (*new stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions*)

Subpart ZZZZ establishes national emission limitations and operating limitations for HAPs emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

General Provisions

The Permittee shall comply with the applicable General Provisions in 40 CFR 63.1 through 63.15 of Subpart A as shown in Table 8 of 40 CFR 63 Subpart ZZZZ.

Emission Standards

The Permittee shall:

- Reduce CO emissions by 93 percent or more; or
- Limit concentration of formaldehyde in the generator exhaust to 14 ppmvd or less at 15 percent O₂.

Operating Limitations

The Permittee shall comply with the following operating limitations:

- For each stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst and complying with the requirement to limit the concentration of formaldehyde in the exhaust and using an oxidation catalyst, the Permittee shall:
 - maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
 - maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.
- For each stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst and each stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst, the Permittee shall comply with any operating limitations approved by the Administrator.

General Requirements

- The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements at all times.
- At all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Performance Testing

- The applicable initial performance test or other initial compliance demonstrations in Table 4 to 40 CFR 63 Subpart ZZZZ must be completed within 180 days after the compliance date that is specified in 40 CFR 63.6595 and according to the provisions in 40 CFR 63.7(a)(2).
- Subsequent performance tests must be conducted as specified in Table 3 of 40 CFR 63 Subpart ZZZZ.
- Each applicable performance test in Tables 3 and 4 of 40 CFR 63 Subpart ZZZZ must be conducted.
- Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 of 40 CFR 63 Subpart ZZZZ. If the stationary RICE that is subject to performance testing is non-operational, the engine does not need to start up solely to conduct the performance test. The Permittee can conduct the performance test on a non-operational engine when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.
- Three separate test runs for each performance test must be conducted as specified in 40 CFR 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in 40 CFR 63 Subpart ZZZZ.
- Equation 1 of 40 CFR 63.6620(e) must be used to determine compliance with the percent reduction requirement for CO, THC, or formaldehyde emissions. The CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device must be normalized as specified in 40 CFR 63.6620(e).
- If the Permittee is complying with the emission limitation to reduce CO and is not using an oxidation catalyst, if the Permittee is complying with the emission limitation to reduce formaldehyde and is not using NSCR, or if the Permittee is complying with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and is not using an oxidation catalyst or NSCR, the owner or operator must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. The initial performance test must not be conducted until after the petition has been approved by the Administrator.
- If the Permittee petitions the Administrator for approval of operating limitations, the petition must include the information described in paragraphs (g)(1) through (5) of 40 CFR 63.6620.
- If the Permittee petitions the Administrator for approval of no operating limitations, the petition must include the information described in paragraphs (h)(1) through (7) of 40 CFR 63.6620.
- The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application in accordance with 40 CFR 63.6620(i).

Monitoring

- If the Permittee elects to install a CEMS as specified in Table 5 of 40 CFR 63 Subpart ZZZZ, a CEMS to monitor CO and either O₂ or CO₂ must be installed, operated, and maintained according to the requirements in paragraphs (a)(1) through (4) of 40 CFR 63.6625. If the Permittee is meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If the Permittee is meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.
- If the Permittee is required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of 40 CFR 63 Subpart ZZZZ, the Permittee must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of 40 CFR 63 Subpart ZZZZ.
- If the Permittee operates a new, reconstructed, or existing stationary engine, the engine's time spent at idle during startup must be minimized and the engine's startup time must be minimized to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to 40 CFR 63 Subpart ZZZZ apply.

- If a stationary SI engine is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to 40 CFR 63 Subpart ZZZZ or in items 5, 6, 7, 9, or 11 of Table 2d of 40 CFR 63 Subpart ZZZZ, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to 40 CFR 63 Subpart ZZZZ.

Initial Compliance

- The Permittee must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies according to Table 5 of 40 CFR 63 Subpart ZZZZ.
- During the initial performance test, the Permittee must establish each operating limitation in Tables 1b and 2b of 40 CFR 63 Subpart ZZZZ that applies.
- The Notification of Compliance Status must be submitted containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.6645.

Continuous Compliance

- If the Permittee must comply with emission and operating limitations, the Permittee must monitor and collect data according to 40 CFR 63.6635.
- Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.
- The Permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in 40 CFR 63 Subpart ZZZZ Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d that apply according to methods specified in 40 CFR 63 Subpart ZZZZ Table 6.
- The Permittee must report each instance in which each applicable emission limitation or operating limitation in 40 CFR 63 Subpart ZZZZ Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d that was not met. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR 63.6650. If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished. When the values of the operating parameters are reestablished, a performance test to demonstrate that the applicable required emission limitation is met must also be conducted.
- For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations.
- The Permittee must also report each instance in which the applicable requirements in Table 8 of 40 CFR 63 Subpart ZZZZ were not met.

Notifications

- The Permittee must submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified for each stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- For each new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions starts up on or after August 16, 2004, an Initial Notification must be submitted not later than 120 days after becoming subject to 40 CFR 63 Subpart ZZZZ.
- If a performance test is required to be conducted, a Notification of Intent to conduct a performance test must be submitted at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1).

- If a performance test is required to be conducted or other initial compliance demonstration as specified in 40 CFR 63 Subpart ZZZZ Tables 4 and 5, a Notification of Compliance Status must be submitted according to 40 CFR 63.9(h)(2)(ii).
- For each initial compliance demonstration required in 40 CFR 63 Subpart ZZZZ Table 5 that includes a performance test conducted according to the requirements in 40 CFR 63 Subpart ZZZZ Table 3, the Notification of Compliance Status must be submitted, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to 40 CFR 63.10(d)(2).

Recordkeeping

- The Permittee must keep the following records:
 - A copy of each notification and report submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
 - Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
 - Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
 - Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- For each CEMS or CPMS, the Permittee must keep the following records:
 - Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
 - Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
 - Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.
- Records required in 40 CFR 63 Subpart ZZZZ Table 6 to show continuous compliance with each applicable emission or operating limitation.
- Records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).
- As specified in 40 CFR 63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- Each record must be kept readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

Reporting

- The Permittee must submit each applicable report in 40 CFR 63 Subpart ZZZZ Table 7.
- Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), each report must be submitted by the date in 40 CFR 63 Subpart ZZZZ Table 7 and according to the following requirements:
 - For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified in 40 CFR 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6595.
 - For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6595.
 - For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

- For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), the first and subsequent Compliance reports may be submitted according to the dates the permitting authority has established instead of according to the dates in 40 CFR 63.6650 paragraphs (b)(1) through (b)(4).
- For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified in 40 CFR 63.6595 and ending on December 31.
- For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified in 40 CFR 63.6595.
- For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
- For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- The Compliance report must contain the following information:
 - Company name and address.
 - Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - Date of report and beginning and ending dates of the reporting period.
 - If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction.
 - If there are no deviations from any emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.
 - If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- For each deviation from an emission or operating limitation that occurs for a stationary RICE where a CMS is not used to comply with the emission or operating limitations, the Compliance report must contain the information in paragraphs (c)(1) through (4) and paragraphs (d)(1) and (2) of 40 CFR 63.6650.
 - The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
 - Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- For each deviation from an emission or operating limitation occurring for a stationary RICE where a CMS is used to comply with the emission and operating limitations, the information in paragraphs (c)(1) through (4) and (e)(1) through (12) of 40 CFR 63.6650.
 - The date and time that each malfunction started and stopped.
 - The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8).
 - The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
 - A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

- A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
- A brief description of the stationary RICE.
- A brief description of the CMS.
- The date of the latest CMS certification or audit.
- A description of any changes in CMS, processes, or controls since the last reporting period.
- Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to 40 CFR 63 Subpart ZZZZ Table 7 along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities.

C. One natural gas-fired emergency generator (ID No. EGEN-01)

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Monitoring/Recordkeeping/Reporting

No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

Visible emissions from this source shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

Monitoring/Recordkeeping/Reporting

No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart JJJJ "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines," including Subpart A "General Provisions."

This source is subject to this subpart in accordance with 60.4230(a)(4)(iv), for owners and operators for owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

General Provisions

The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 3 of 40 CFR 60 Subpart JJJ.

Emission Standards

The Permittee shall comply with the following emission standards:

Engine type	Maximum engine power	Manufacture date (after)	Emission standards		
			g/HP-hr (ppm)		
			NO _x	CO	VOC
Emergency	HP≥130	1/1/2009	2.0 (160)	4.0 (540)	1.0 (86)

Monitoring

The engine shall be equipped with a non-resettable hour meter if manufactured after July 1, 2011.

Compliance Requirements

The Permittee shall comply with the emission standards by:

- purchasing an engine certified according to the procedures in 40 CFR 60 Subpart JJJJ for its respective model year, and
- operate and maintain the certified stationary spark ignition (SI) internal combustion engine (ICE) and control device according to the manufacturer's emission-related written instructions, The Permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the Permittee.

The Permittee shall operate and maintain the stationary SI ICE that achieve the above required emission standards over the entire life of the engine.

If applicable, air-to-fuel ratio (AFR) controllers shall be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.

- There is no time limit on the use of emergency stationary ICE in emergency situations.
- The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in the subparagraph below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by the subparagraph below counts as part of the 100 hours per calendar year allowed by this paragraph.
 - Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
- Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph b above. Except as provided in the subparagraph below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

- The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- The power is provided only to the facility itself or to support the local transmission and distribution system.
- The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Recordkeeping

The Permittee shall keep the following records:

- All notifications submitted to comply with 40 CFR 60 and all documentation supporting any notification.
- Maintenance conducted on the engine.
- If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.
- If the emergency engine is manufactured after July 1, 2011, the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

Reporting

The Permittee shall submit:

- a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.
- The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities.

4. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Maximum Achievable Control Technology (MACT) as promulgated in 40 CFR 63 Subpart ZZZZ “National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines” and Subpart A “General Provisions.” (*new stationary RICE located at a major source of HAP emissions*)

Stationary RICE subject to Regulations under 40 CFR Part 60

Pursuant to 40 CFR 63.6590(c)(6), these sources shall meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR 60 Subpart JJJJ. No further requirements apply for these engines under 40 CFR 63 Subpart ZZZZ and Subpart A.

Multiple Emission Source Requirements for New Sources (Sections D, E and F below)

The following are the applicable multiple emission source requirements for the new sources (also applies to the existing sources):

D. Facility-Wide Regulations

State-enforceable only

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS
The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

State-enforceable only

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS
See Section 8 below.

State-enforceable Only

3. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT
See Section 8 below.

E. Two natural gas-fired Solar Titan 130 combustion turbines with dry low NO_x (ID Nos. ES-M/L17 and ES-M/L18)

Two natural gas-fired auxiliary generators (ID Nos. AUX-04 and AUX-05)

One natural gas-fired emergency generator (ID No. EGEN-01)

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION
In order to avoid applicability of 15A NCAC 02D .0530(g), emissions discharged into the atmosphere from these new sources shall be less than 40 tons of nitrogen oxides (NO_x), less than 100 tons of carbon monoxide (CO), and less than 10 tons of particulate matter with aerodynamic diameter less than 2.5 micrometers (PM_{2.5}) per consecutive 12-month period.
The most conservative estimate of emissions for NO_x, CO, and PM_{2.5} emissions during the transition period, will occur if and when the 15 existing two-stroke, lean-burn (2SLB) mainline compressor engines (ES-M/L1 through ES-M/L15), the Boiler (ES-BLR2), the natural gas-fired dry low NO_x combustion turbine (ES M/L16) and the air compressor engine (ES-A/C1) are operating in conjunction with the two new natural gas-fired Solar Titan 130-23502S combustion turbines (ES-M/L17 and ES-M/L18) and the three natural gas-fired four-stroke, lean-burn (4SLB) generator engines (AUX-04, AUX-05, and EGEN-01).

Monitoring and Recordkeeping

The Permittee shall demonstrate compliance with the facility-wide NO_x, CO, and PM_{2.5} emission limitations by calculating the rolling 12-month facility-wide emissions for each of these pollutants on a monthly basis (by the 30th day following the end of each calendar month) as follows. All emissions and emission factors shall be calculated in a manner consistent with application 7900131.22A.

The Permittee shall keep monthly records in a logbook (written or electronic format) of the NO_x, CO, and PM_{2.5} emission calculations.

Reporting

The Permittee shall submit semiannual summary reports of monitoring and recordkeeping activities given above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly NO_x, CO, and PM_{2.5} emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

2. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

Permitting

Pursuant to 15A NCAC 02Q .0501(b)(2) or (c)(2), for completion of the two-step significant modification process initiated by Application No. (7900131.22A), the Permittee shall file an amended application following the procedures of Section 15A NCAC 02Q .0500 within one year from the date of beginning operation of any of these sources (ID Nos. ES-M/L17, ES-M/L18, AUX-04, AUX-05, and EGEN-01).

Reporting

The Permittee shall notify the Regional Office in writing of the date of beginning operation of any of these source(s) (ID Nos. ES-M/L17, ES-M/L18, AUX-04, AUX-05, and EGEN-01), postmarked no later than 30 days after such date.

F. Ten two-stroke natural gas lean-fired internal combustion engines (ID Nos. ES-M/L1 through ES-M/L10)

Four four-stroke natural gas rich-fired emergency internal combustion engines (ID Nos. ES-AUX1 through ES-AUX3 and ES-A/C1)

Five two-stroke natural gas lean-fired internal combustion engines (ID Nos. ES-M/L11 through ES-M/L15)

One natural gas-fired dry low NO_x combustion turbine (ID No. ES-M/L16)

Two natural gas-fired Solar Titan 130 combustion turbines with dry low NO_x (ID Nos. ES-M/L17 and ES-M/L18)

1. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart OOOOa, "Standards of Performance for Crude Oil and Natural Gas Facilities For Which Construction, Modification, or Reconstruction Commenced After September 18, 2015."

Applicability

This subpart establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after September 18, 2015.

Amendments to the current NSPS under 40 CFR 60 Subpart OOOO and the NSPS under 40 CFR Part 60 Subpart OOOOa were promulgated on June 3, 2016. The final rule is effective August 2, 2016. Since the proposed project will be implemented after September 18, 2015, only NSPS Subpart OOOOa applies (Note, Subpart OOOO applies to affected facilities that commence construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015).

Affected facilities under NSPS Subpart OOOOa include the following applicable provisions of one or more of the onshore affected facilities listed in paragraphs (a) through (j) of 60.5365a that is located within the Crude Oil and Natural Gas Production source category, as defined in §60.5430a, for which construction, modification, or reconstruction is commenced after September 18, 2015:

- Hydraulically fractured natural gas wells
- Centrifugal compressors with wet seals and reciprocating compressors
- Pneumatic controllers at natural gas processing plants and other locations within the crude oil and natural gas source category
- Storage vessels with potential VOC emissions greater than 6 tpy

- A group of equipment within a process unit for the extraction of natural gas liquids from field gas, fractionation of liquids into natural gas products, or other operations associated with the processing of natural gas products
- Pneumatic pumps at onshore natural gas processing plants or well sites
- Fugitive equipment components at onshore natural gas processing plants, well sites, and compressor stations
- Sweetening units at onshore natural gas processing plants

According to the application, Transco states that of the above Subpart OOOOa affected facilities, the proposed project will not include any affected facilities with requirements related to wells sites, natural gas processing, centrifugal compressors with wet seals, reciprocating compressors, or storage vessels with VOC emissions greater than 6 tpy. Transco anticipates the centrifugal compressors associated with the combustion turbines will be equipped with dry gas seals and therefore the requirements for centrifugal compressors do not apply to this project.

Transco anticipates that pneumatic supply gas controllers or pumps procured for the project will operate on supplied air to comply with NSPS Subpart OOOOa requirements.

For fugitive equipment components at compressor stations, the affected source includes all fugitive equipment components located at the compressor station. Per 40 CFR 60.5365a(j): "...For purposes of 40 CFR- 60.5397a, a "modification" to a compressor station occurs when: (1) An additional compressor is installed at a compressor station; or (2) One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced. When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for purposes of 40 CFR 60.5397a." The proposed installation of the new turbine-driven compressor units at Compressor Station 160 will result in a "modification" of the compressor station. Therefore, the collection of fugitive equipment components at Compressor Station 160 will be an "affected facility" under NSPS Subpart OOOOa. Transco will comply with the leak survey and repair requirements referenced in the regulation as applicable.

Based on the above, only paragraphs (d)(1) and (j) of 40 CFR 60.5365a apply to the proposed project as follows:

- 40 CFR 60.5365a(d)(1) Each pneumatic controller affected facility not located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh.

The Transco facility is not a natural gas processing plant as defined in 40 CFR 60.5430a since it is not engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

- 40 CFR 60.5365a(j) The collection of fugitive emissions components at a compressor station, as defined in 40 CFR 5430a, is an affected facility. For purposes of 40 CFR 60.5397a, a "modification" to a compressor station occurs when:
 - (1) An additional compressor is installed at a compressor station; or
 - (2) One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced. When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for purposes of 40 CFR 60.5397a.

The Transco facility is a compressor station which means any permanent combination of one or more compressors that move natural gas at increased pressure through gathering pipelines.

8. Facility-wide Toxics Demonstration

State-enforceable only

15A NCAC 02D .1100 CONTROL OF TOXIC AIR POLLUTANTS

As a result of the modifications to add the new sources and retire many of the existing sources as shown in Section 1 above (Purpose of Application), a facility-wide toxics modeling demonstration was triggered. The Permittee submitted a facility-wide toxic air pollutant dispersion modeling analyses received July 14, 2022, for the period after commissioning and a facility-wide toxic air pollutant dispersion modeling analyses received March 21, 2023 for the commissioning period as discussed below. The facility had not previously been triggered for toxics since all sources were combustion sources eligible for the exemption in 15A NCAC 02Q .0702. The modeled emission rates from the new combustion turbines, ES-M/L17 and ES-M/L18, conservatively includes the worst-case combination of normal operation, start-up, shutdown, and subzero operation.

In accordance with 15A NCAC 02Q .0709(a), the owner or operator of a source who is applying for a permit or permit modification to emit toxic air pollutants shall:

- i. demonstrate to the satisfaction of the Director through dispersion modeling that the emissions of toxic air pollutants from the facility will not cause any acceptable ambient level listed in 15A NCAC 02D .1104 to be exceeded beyond the premises (adjacent property boundary); or
- ii. demonstrate to the satisfaction of the Commission or its delegate that the ambient concentration beyond the premises (adjacent property boundary) for the subject toxic air pollutant shall not adversely affect human health (e.g., a risk assessment specific to the facility) though the concentration is higher than the acceptable ambient level in 15A NCAC 02D .1104.

As required by NCAC 02Q .0706(b), the owner or operator of the facility shall submit a permit application to comply with 15A NCAC 02D .1100 if the modification results in:

- i. a net increase in emissions or ambient concentration of any toxic air pollutant that the facility was emitting before the modification; or
- ii. emissions of any toxic air pollutant that the facility was not emitting before the modification if such emissions exceed the levels contained in 15A NCAC 02Q .0711.

As required by NCAC 02Q .0706(c), the permit application shall include an evaluation for all toxic air pollutants covered under 15A NCAC 02D .1104 for which there is:

- i. a net increase in emissions of any toxic air pollutant that the facility was emitting before the modification; and
- ii. emission of any toxic air pollutant that the facility was not emitting before the modification if such emissions exceed the levels contained in 15A NCAC 02Q .0711.

All sources at the facility, excluding sources exempt from evaluation in 15A NCAC 02Q .0702, emitting these toxic air pollutants shall be included in the evaluation.

The Permittee performed a facility-wide air toxics analysis, for all permitted existing sources, including the MACT sources. Air toxics emissions for the sources in this permit subject to a Part 63 MACT are exempt from air permitting, pursuant to 02Q .0702(a)(27)(B) and the Permittee is not required to model exempt MACT sources. Nevertheless, the Permittee has volunteered to include emissions for all such exempt sources in the modeling analysis.

Project Commissioning Period

There will be a period of approximately 1-2 months when some of the existing legacy NG-fired reciprocating compression equipment could operate while the newly-installed NG-fired turbine compression replacement equipment is commissioned. The commissioning process involves intermittent runtime testing of the new replacement turbines for proper functionality while some of the existing legacy compression equipment operates to ensure natural gas flow across the station to be transported along the Transco interstate pipeline system before the new turbines are placed into operational service. Due to Federal Energy Regulatory Commission (FERC) regulatory requirements, there cannot be simultaneous operation between the legacy reciprocating compression equipment (must be permanently retired) and the new turbine compression

equipment once the new turbines commence full in-service operation following commissioning. However, for conservatism and to ensure compliance with the ambient toxic standards, a supplemental modeling analysis was prepared to evaluate potential toxic emissions during the commissioning period when a combination of existing (legacy) and new equipment may operate at the same time. The toxics demonstration during the commissioning period is covered in Section 8.A below and the toxics demonstration for the period after commissioning is covered in Section 8.B below.

The table below shows all permitted sources along with those sources that were evaluated in the modeling as potentially operating during the commissioning period and for the analysis after the commissioning period.

Permitted Sources	Sources Operating During Commissioning (New and Some Legacy)	Sources Operating After Commissioning (New Sources Only)
M/L1	No operation allowed	Retired
M/L2	No operation allowed	Retired
M/L3	M/L3	Retired
M/L4	M/L4	Retired
M/L5	M/L5	Retired
M/L6	No operation allowed	Retired
M/L7	M/L7	Retired
M/L8	No operation allowed	Retired
M/L9	M/L9	Retired
M/L10	M/L10	Retired
M/L11	No operation allowed	Retired
M/L12	M/L12	Retired
M/L13	M/L13	Retired
M/L14	M/L14	Retired
M/L15	M/L15	Retired
M/L16	M/L16	Retired*
AUX1	AUX1	Retired
AUX2	AUX2	Retired
AUX3	AUX3	Retired
BLR2	BLR2	Retired
AC1	AC1	Retired
M/L17	M/L17	M/L17
M/L18	M/L18	M/L18
AUX-04	AUX-04	AUX-04
AUX-05	AUX-05	AUX-05
EGEN-01	EGEN-01	EGEN-01
SHB	SHB	SHB
DHB	DHB	DHB
M/L16CB	M/L16CB	M/L16CB
M/L17CB	M/L17CB	M/L17CB
M/L18CB	M/L18CB	M/L18CB

TTLO	TTLO	TTLO
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* Even though this source is being retired, it was not included in the modeling for the scenario after commissioning as discussed in Section 8.B below.

A. Toxics Demonstration During Commissioning

This is the period when both new sources and some legacy sources may operate.

Transco will not operate the following legacy NG-fired reciprocating compression equipment at any time during the commissioning period:

- ES M/L-1
- ES M/L-2
- ES M/L-6
- ES M/L-8
- ES M/L-11

Therefore, the emission rate for each of these was set to zero in the model.

The first step in the toxics analysis is to identify which toxic air pollutants will be emitted and their emission rates. The next step is to perform a toxic pollutant emission rate (TPER) analysis using total facility-wide potential emissions from the proposed modification to determine if the TPERs in rule 02Q .0711 are exceeded for each toxic air pollutant (TAP) being emitted. Table 2 below summarizes the facility-wide emission rate of each TAP for comparison to the TPER rates for the required averaging periods.

Table 2 - TPER Evaluation During Commissioning

Toxic Air Pollutant	Facility-Wide Emission Rate	TPER	Facility-Wide Emission Rate	TPER	Facility-Wide Emission Rate	TPER	Modeling Required?
	(lb/hr)	(lb/hr)	(lb/day)	(lb/day)	(lb/yr)	(lb/yr)	
1,1,2,2-Tetrachloroethane	1.32E-02	-	0.3	-	115	430	No
1,3-Butadiene	9.06E-02	-	2.1	-	772	11	Yes
Acetaldehyde	3.1	6.8	70.0	-	25564	-	No
Acrolein	1.7	0.02	40.7	-	14848	-	Yes
Benzene	0.32	-	3.8	-	1393	8.1	Yes
Benzo(e)pyrene	1.37E-04	-	3.27E-03	-	1.19	2.2	No
Carbon Tetrachloride	1.21E-02	-	2.89E-01	-	106	460	No
Chlorobenzene	1.01E-02	-	0.24	46	87	-	No
Chloroform	9.43E-03	-	0.22	-	82	290	No
Ethylene Dibromide	1.47E-02	-	0.35	-	127	27	No
Formaldehyde	19.01	0.04	441.2	-	161039	-	Yes
Methylene Chloride	6.62E-03	0.39	0.16	-	58	1600	No
n-Hexane	2.35	-	9.0	23	3293	-	No
Phenol	7.94E-03	0.24	0.19	-	69	-	No
Styrene	7.81E-03	2.7	0.19	-	68	-	No
Tetrachloroethane	8.21E-04	-	1.95E-02	-	7.1	430	No
Toluene	0.90	14.4	7.0	98	2549	-	No
Vinyl Chloride	4.93E-03	-	1.17E-01	-	43	26	No

Xylene	0.45	16.4	3.3	57	1206	-	No
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As shown in Table 2 above, the TPER evaluation indicated emissions of acrolein, benzene, 1,3-butadiene, and formaldehyde exceed their respective TPERs requiring a permit; therefore, a facility-wide air toxics analysis was performed for these TAPs.

Air Toxics AAL Analysis

A facility-wide air dispersion modeling analysis was completed using potential emissions to determine the resulting modeled ambient concentrations for comparison to the Acceptable Ambient Levels (AALs) in 15A NCAC 02D .1104. The emission rates were modeled at 8,760 hours per year. Table 3 below shows the maximum modeled concentrations for the most recent five-year period (2014-2018) of meteorological data. All modeled maximum concentration results are less than the AAL. Since emissions occurring simultaneously from both existing and new sources will be intermittent and temporary, this analysis, which represents unrestricted and simultaneous emissions from existing and new equipment, is a conservative prediction of maximum concentrations. This demonstration shows that the concurrent operation of new and existing equipment during the commissioning period will not pose excess risk to human health and the environment.

Table 3
Maximum Modeled Toxics Impacts During Commissioning

Pollutant	Averaging Period	Maximum Impact (µg/m ³)	AAL (µg/m ³)	Maximum Modeled Impacts % of AAL
Acrolein	1-hour	12.9	80	16%
Benzene	Annual	0.07	0.12	58%
1,3-Butadiene	Annual	0.042	0.44	9.5%
Formaldehyde	1-hour	138	150	92%

The toxics dispersion modeling analysis was reviewed and approved by Justin McKee, AQAB, (see memo to Ed Martin dated March 29, 2023), and the analysis demonstrates compliance with Acceptable Ambient Levels (AALs) outlined in 15A NCAC 02D.1104, on a source-by-source basis. These TAP emission rate limits are being placed in the permit.

Monitoring During the Commissioning Period

After the date of beginning operation of any of the new sources (ID Nos. ES-M/L17, ES-M/L18, AUX-04, AUX-05, or EGEN-01), the following legacy sources shall not be operated during the commissioning period: ES-M/L1, ES-M/L2, ES-M/L6, ES-M/L8, or ES-M/L11. Recordkeeping is required to indicate the date and time of any operation of these sources.

The permit toxic limits for all sources modeled for the period during commissioning, except for the sources exempt from air permitting as Part 63 MACT sources, are shown below in Table 4 and in permit condition 2.2 B.2.a.

Table 4
Permit Toxic Emission Limits During Commissioning

Emission Source	Toxic Air Pollutant	Emission Limit
		lb/yr
I-SHB Suction Header Blowdown	Benzene	2.987E-01
I-DHB Discharge Header Blowdown	Benzene	2.576E-01
I-M/L16CB M/L16 Compressor Blowdown	Benzene	6.719E-02
I-M/L17CB M/L17 Compressor Blowdown	Benzene	6.719E-02
I-M/L18CB M/L18 Compressor Blowdown	Benzene	6.719E-02
I-TTLO Tanker Truck Loadout	Benzene	2.531E-06
I-FUGS Piping connectors and equipment leaks	Benzene	4.818E-01
I-T-0014 Natural Gas Condensate Tank	Benzene	8.208E-03

B. Toxics Demonstration After the Commissioning Period

This is the period after all legacy sources are retired.

Note that ES-M/L16 which is the existing combustion turbine, is exempt from the analysis for the period after commissioning per 15A NCAC 2Q .0702(18) since it was permitted prior to July 10, 2010. Therefore, a risk assessment is made below for this source since it affects the modeling to some degree. However, emissions from the ES-M/L16 compressor blowdowns are included.

The first step in the toxics analysis is to identify which toxic air pollutants will be emitted and their emission rates. The next step is to perform a toxic pollutant emission rate (TPER) analysis using total facility-wide potential emissions from the proposed modification to determine if the TPERs in rule 02Q .0711 are exceeded for each toxic air pollutant (TAP) being emitted. Table 2 below summarizes the facility-wide emission rate of each TAP for comparison to the TPER rates for the required averaging periods.

Table 5 - TPER Evaluation After the Commissioning Period

Toxic Air Pollutant	Facility-Wide Emission Rate	TPER	Facility-Wide Emission Rate	TPER	Facility-Wide Emission Rate	TPER	Modeling Required?
	(lb/hr)	(lb/hr)	(lb/day)	(lb/day)	(lb/yr)	(lb/yr)	
1,1,2,2-Tetrachloroethane	1.09E-03	-	0.024	-	8.6	430	No
1,3-Butadiene	0.009	-	0.169	-	61.6	11	Yes
Acetaldehyde	0.43	6.8	5.97	-	2180	-	No
Acrolein	0.17	0.02	3.20	-	1168	-	Yes
Benzene	1.88E-01	-	0.575	-	210	8.1	Yes
Benzo(e)pyrene	1.13E-05	-	2.45E-04	-	0.09	2.2	No
Carbon Tetrachloride	9.98E-04	-	0.022	-	7.9	460	No
Chlorobenzene	8.27E-04	-	0.018	46	6.5	-	No
Chloroform	7.75E-04	-	0.017	-	6.1	290	No
Ethylene Dibromide	1.21E-03	-	0.026	-	9.5	27	No
Formaldehyde	2.45	0.04	43.93	-	16036	-	Yes
Methylene Chloride	5.44E-04	0.39	0.012	-	4.3	1600	No
n-Hexane	2.01	-	0.713	23	260	-	No
Phenol	6.53E-04	0.24	0.014	-	5.2	-	No
Styrene	6.42E-04	2.7	0.014	-	5.1	-	No
Tetrachloroethane	6.75E-05	-	0.001	-	0.5	430	No
Toluene	0.77	14.4	3.63	98	1325	-	No
Vinyl Chloride	4.05E-04	-	0.009	-	3.2	26	No
Xylene	0.38	16.4	1.777	57	649	-	No

As shown in Table 5 above, the TPER evaluation indicated emissions of acrolein, benzene, 1,3-butadiene, and formaldehyde exceed their respective TPERs requiring a permit; therefore, a facility-wide air toxics analysis was performed for these TAPs.

Air Toxics AAL Analysis

A facility-wide air dispersion modeling analysis was completed using potential emissions to determine the resulting modeled ambient concentrations for comparison to the AALs in 15A NCAC 02D .1104. The emission rates were modeled at 8,760 hours per year. Table 6 below shows the maximum modeled concentrations for the most recent five-year period (2014-2018) of meteorological data. All modeled maximum concentration results are less than the AAL.

Table 6
Maximum Modeled Toxics Impacts After the Commissioning Period

Pollutant	Averaging Period	Maximum Impact (µg/m ³)	AAL (µg/m ³)	Maximum Modeled Impacts % of AAL
Acrolein	1-hour	2.87	80	3.59%
Benzene	Annual	0.00836	0.12	6.97%
1,3-Butadiene	Annual	0.00492	0.44	1.12%
Formaldehyde	1-hour	29.5	150	19.67%

Risk Assessment for ES-M/L16

As stated above, ES-M/L16 is exempt from the analysis for the period after commissioning and therefore was not included in the modeling analysis. Therefore, a risk assessment is made for this source since it

affects the modeling to some degree. As shown below, for the four toxics modeled, emissions for each toxic are a very small percent of the total facility emissions. Given the wide margin to the AALs above, the modification would not present an unacceptable risk to human health.

Source	Acrolein, lb/hr	Benzene, lb/hr	1,3-Butadiene, lb/hr	Formaldehyde, lb/hr
Total facility-wide	0.17	1.88E-01	0.009 lb/hr	2.45
ES-M/L16	7.81 E-04	0.00146 E-03	5.246 E-05	0.0865
Percent of Total Facility	0.459	7.76	0.58	3.53

The toxics dispersion modeling analysis was reviewed and approved by Matthew Porter, AQAB, (see memo to Ed Martin dated August 24, 2022), and the analysis demonstrates compliance with AALs outlined in 15A NCAC 02D.1104, on a source-by-source basis. These TAP emission rate limits are being placed in the permit.

No toxics monitoring is required after the commissioning period since the potential emissions are significantly below the respective AALs as shown in Table 6 above.

The permit toxic limits for the period after commissioning for all sources modeled, except for the sources exempt from air permitting as Part 63 MACT sources, are shown below in Table 7 and in permit condition 2.2 B.3.a.

Table 7
Permit Toxic Emission Limits After the Commissioning Period

Emission Source	Toxic Air Pollutant	Emission Limit
		lb/yr
I-SHB Suction Header Blowdown	Benzene	2.987E-01
I-DHB Discharge Header Blowdown	Benzene	2.576E-01
I-M/L16CB M/L16 Compressor Blowdown	Benzene	6.719E-02
I-M/L17CB M/L17 Compressor Blowdown	Benzene	6.719E-02
I-M/L18CB M/L18 Compressor Blowdown	Benzene	6.719E-02
I-TTLO Tanker Truck Loadout	Benzene	2.531E-06
I-FUGS Piping connectors and equipment leaks	Benzene	4.818E-01
I-T-0014 Natural Gas Condensate Tank	Benzene	8.190E-03

9. Other Requirements

PE Seal

A PE seal is not required since there are no air pollution capture or control systems being added in accordance with 02Q .0112.

Zoning

A consistency determination was received on July 27, 2022, dated July 21, 2022, from Lynn Cochran, Senior Planner with Rockingham County stating they received a copy of the air permit application and the proposed operation is consistent with applicable zoning ordinances.

Fee Classification

The facility fee classification before and after this modification will remain as “Title V”.

Increment Tracking

Rockingham County has triggered increment tracking under PSD for PM₁₀, PM_{2.5}, NO_x, and SO₂. This modification will result in a decrease of 11.37 pounds per hour of PM₁₀, a decrease of 11.37 pounds per hour of PM_{2.5}, a decrease of 1,235.03 pounds per hour of NO_x, and an increase of 1.26 pounds per hour of SO₂.

These increment rates are determined using emission rates from page 2 of 25 in Appendix C of the application as follows:

Regulated NSR Pollutant	Tons per Year			Pounds per Hour
	Existing Site-wide Emissions	New Site-wide Emissions	Net Emissions Change	
NOx	5,557.87	148.40	- 5,409.47	-1,235.03
SO ₂	1.92	7.42	+5.50	+ 1.26
PM10	70.47	20.67	- 49.80	- 11.37
PM2.5	70.47	20.67	- 49.80	- 11.37

10. Comments on Draft Permit

The draft permit was sent to the Stationary Source Compliance Branch, Applicant and Winston-Salem Regional Office on November 9, 2022.

Transco Comments (email to Ed Martin from Michael Callegari dated December 14, 2022)

A marked-up/tracked changes permit with comments was received from Transco. The most critical hurdles pertain to the facility-wide emission limits during the transitional period (now in PSD avoidance condition in Section 2.2 C.1). Other comments include the following which were incorporated:

1. 15A NCAC 02D .0524 (40 CFR Part 60, Subpart OOOOa) applies only to Sections 2.1 A, B, C and E. It is removed from 2.1 D, F and G.
2. Section 2.1 E table, page 18. The correct NOx limit is 25 ppm not 15. This limit was correct in Section 2.1 E.2.b, page 19.
3. Section 2.1 F table, page 24 and Section 2.1 F.3.c, page 25. Corrected Subpart JJJJ ppm limits.
4. Section 2.2 A.3, page 37. This MACT avoidance condition was an earlier version and will be essentially as you show.

The following to be discussed as related to the commissioning period:

1. Section 2.2 A.2, page 36. The PSD caps. Reference to 75,000 tons of carbon dioxide equivalent (CO_{2e}) will be removed.
2. Section 2.2 A.5, page 40. Toxics.

Other Items:

1. Cover letter, third paragraph. This language is how we handle petitions filed for grievance for any parts, requirements, or limitations in Division of Air Quality permits issued in North Carolina; however, this does not preclude you from filing a petition that may be appropriate for review pursuant to Section 19(d) of the Federal Natural Gas Act, 15 U.S.C.A. § 717r(d).

2. Section 2.2 generally will be rearranged to cover the five rules currently shown in 2.2 A as facility-wide more accurately.

SSCB Comments (email to Ed Martin from Samir Parekh dated November 16, 2022)

SSCB had no comments.

WSRO Comments (email to Ed Martin from Dylan Wright dated November 10, 2022)

In a marked-up/tracked changes permit and review, there were minor typos and comments on formatting which were corrected to the extent they did not conflict with the standard shell requirements or are no longer applicable due to the changes made since the time the draft documents were sent out for review.

11. Recommendations

Issuance is recommended.

ATTACHMENT B

Review for Application Number: 7900131.23A
Resulting in the Issuance of Permit Number: 09113/T16

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Attachment - Application Review Minor Mod

Issue Date: 01/30/2024

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900131
Inspector's Name: Dylan Wright
Date of Last Inspection: 08/08/2023
Compliance Code: 3 / Compliance - inspection

Facility Data	Permit Applicability (this application only)
<p>Applicant (Facility's Name): Transcontinental Gas Pipe Line Company, LLC - Station 160</p> <p>Facility Address: Transcontinental Gas Pipe Line Company, LLC - Station 160 4300 NC 65 Reidsville, NC 27320</p> <p>SIC: 4922 / Natural Gas Transmission NAICS: 48621 / Pipeline Transportation of Natural Gas</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p>SIP: 15A NCAC 02Q .0515 and 02Q .0317 for 02D .1111 NSPS: NA NESHAP: NA PSD: NA PSD Avoidance: NA NC Toxics: NA 112(r): NA Other: Less than 10 tons per year of a single HAP and less than 25 tons per year total HAPs</p>

Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 7900131.23A Date Received: 12/05/2023 Application Type: Modification Application Schedule: TV-Minor Existing Permit Data Existing Permit Number: 09113/T15 Existing Permit Issue Date: 04/24/2023 Existing Permit Expiration Date: 09/30/2027</p>
Joseph Page Sr. Operations Manager (336) 361-3003 4300 NC Highway 65 Reidsville, NC 27320	Glen Jasek VP GM Eastern Interstates (713) 215-2134 2800 Post Oak Blvd, Suite 600 Houston, TX 77056+6146	Michael Callegari Senior Environmental Specialist (832) 794-0612 2800 Post Oak Boulevard, Suite 600 Houston, TX 77056+6147	

Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	0.3900	1302.51	115.47	435.85	23.53	70.33	50.72 [Formaldehyde]
2021	0.4200	1447.47	110.49	448.27	23.45	68.56	49.45 [Formaldehyde]
2020	0.2500	1396.78	98.17	414.97	20.40	60.69	43.75 [Formaldehyde]
2019	0.2200	1340.51	73.24	367.30	16.09	44.64	32.18 [Formaldehyde]
2018	0.0700	337.51	32.30	111.94	5.74	17.26	12.45 [Formaldehyde]

<p>Review Engineer: Ed Martin</p> <p>Review Engineer's Signature: _____</p> <p>Date: 01/30/2024</p>	<p align="center">Comments / Recommendations:</p> <p>Issue 09113T16</p> <p>Permit Issue Date: 01/30/2024</p> <p>Permit Expiration Date: 09/30/2027</p>
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1. Purpose of Application

Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of The Williams Companies, Inc., is requesting two major changes to the existing permit to allow the facility to qualify as a minor source of HAPs. The first change requested is to revise the 40 CFR Part 63, Subpart ZZZZ Maximum Achievable Control Technology (MACT) requirements for the two non-emergency generators (AUX-04 and AUX-05) in Section 2.1 F.4 of the permit from the major HAP requirements to the area source requirements. The other change is to add a HAP MACT avoidance condition in Section 2.2 B.5 of the permit as discussed below. The facility currently operates under Title V Operating Permit No. 09113T15 issued on April 24, 2023, for Part I of a significant modification.

Compressor Station 160 is an existing major source with respect to both the Prevention of Significant Deterioration (PSD) and Title V permitting programs. Once these planned modifications become operational after completion of the Part II Title V process, it is anticipated that the facility will continue to operate under the Title V permitting program but will be minor with respect to PSD.

When the current permit was written, the facility was and still is a major source of HAPs. Transco wants the above changes to enable the facility to demonstrate that it qualifies as a minor source of HAP with the addition of a MACT avoidance condition and the removal of existing legacy equipment. This will allow the facility to address the commissioning period during which time the new equipment added in Permit No. 09113T15 will begin to operate intermittently while some of the existing equipment will continue to operate.

Currently, as a major source of HAPs, Transco cannot operate generators AUX-04 and AUX-05 because they cannot meet the major source MACT ZZZZ emission standards in Section 2.1 F.4.c of the current permit to reduce CO emissions by 93 percent or more or comply with the requirement to limit the concentration of formaldehyde in the exhaust to 14 ppmvd or less at 15 percent O₂ because they did not purchase these generators with an oxidation catalyst in accordance with 40 CFR 63.6600(b) and Table 2b of 40 CFR 63 Subpart ZZZZ. Therefore, commissioning of generators AUX-04 and AUX-05 cannot occur until all existing (legacy) reciprocating M/L engines have been permanently retired so that the facility-wide HAP potential to emit will be below major source levels assuring area source status of the facility in accordance with the new MACT avoidance condition. At that time, these generators can startup and operate under the minor source Subpart ZZZZ (GACT) requirements now being put in the permit.

The Division of Air Quality (DAQ) and Transco discussed in a Teams call on September 15, 2023, the best way to allow Transco to move forward on their plans for the commissioning process. This involves intermittent runtime testing of the new equipment added in Permit No. 09113T15 for proper functionality of the facility while some of the existing legacy compression equipment continues to operate to ensure natural gas flow across the station to be transported along the Transco interstate pipeline system. For the minor MACT Subpart ZZZZ condition for AUX-04 and AUX-05 as well as the MACT ZZZZ condition for emergency generator EGEN-01, it was decided to keep the current MACT ZZZZ major HAP requirements in the permit in addition to placing the new minor HAP MACT ZZZZ requirements that Transco requested for these three sources. The permit will specify when those requirements are applicable with respect to the HAP status of the facility so that the entire period is covered until Part II of the of the significant modification is issued.

This is a minor modification following the procedures in 15A NCAC 02Q .0515. The DAQ has issued a completeness determination letter to the applicant dated December 22, 2023, stating the application

contained all the required elements for a minor modification and is considered complete as of December 13, 2023, and that the applicant may make the proposed change immediately.

2. Facility Description

Transco Compressor Station 160 is a natural gas compressor station that operates under Standard Industrial Classification (SIC) code 4922 and North American Industry Classification System (NAICS) code 486210 and delivers natural gas through a 10,000-mile interstate transmission pipeline system extending from south Texas to New York City, transporting approximately 15% of the nation’s natural gas with 57 stations. Compressor Station 160 is located approximately 7 miles west of Reidsville in Rockingham County.

3. Application Chronology

- April 24, 2023 Permit 09113T15, the current permit, was issued for a Part I Title V Significant Modification to install two natural gas-fired combustion turbines (ES-M/L17 and ES-M/L18), three natural gas-fired generator engines, one of which will be an emergency-use unit (EGEN-01), and two which will be non-emergency units (AUX-04 and AUX-05).
- September 15, 2023 A Teams call was held to discuss the application among Mark Cuilla, Booker Pullen, Ed Martin, Dylan Wright, Ray Stewart, Davis Murphy, Mike Callegari, and other station personnel.
- December 5, 2023 Application 7900131.23A was received and considered complete on December 13, 2023, with the receipt of the application fee.
- December 13, 2023 The application fee was received.
- December 22, 2023 The minor modification 10-day letter was sent to Transco stating the application was considered complete as of December 13, 2023.
- January 19, 2024 The draft permit was sent for supervisor’s review.
- January 24, 2024 The draft permit was sent to the Applicant for review and comment.
- January 25, 2024 The Applicant notified DAQ that they had no comments on the draft permit.
- January 30, 2024 The permit was issued.

4. Permit Changes

The following changes were made to Air Permit No. 09113T15:*

Page No.	Section	Description of Changes
Cover Letter	N/A	Amended permit numbers and dates.
4	1, table	Changed the “MACT ZZZZ” designation to “MACT/GACT ZZZZ” for sources AUX-04, AUX-05, and EGEN-01. Added footnote 2 for the minor modification per 15A NCAC 02Q .0515.
24	2.1 F, regulation table	Added 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) Limits/Standards to be applicable after the facility becomes a minor source of HAPs.
31	2.1 F.5	Added 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) Limits/Standards to be applicable after the facility becomes a minor source of HAPs.
32	2.1 G, regulation table	Added 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) Limits/Standards to be applicable after the facility becomes a minor source of HAPs.
35	2.1 G.5	Added 15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ) Limits/Standards to be applicable after the facility becomes a minor source of HAPs.
38	2.2 B, regulation table	Added 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .1111 Maximum Achievable Control Technology.
41	2.2 B.5	Added 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .1111 Maximum Achievable Control Technology.
48-55	4	Updated General Conditions to version 7.0, dated 08/21/2023.

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

5. Regulatory Evaluation

In order to avoid applicability of 15A NCAC 02D .1111 for major sources, facility-wide emissions of HAPs must be less than less than 10 tons of any individual HAP and less than 25 tons of total combined HAP, per consecutive 12-month period. Until Transco becomes a true minor HAP source the facility will remain a major source of HAPs. Therefore, a HAP avoidance condition is necessary to allow Transco to complete commissioning of the new sources added in the Part I processing schedule of the Title V modification for this facility.

Potential facility-wide HAP emissions could exceed the 10/25 ton per year threshold while commissioning occurs; however, after the existing sources are permanently retired, the largest potential single HAP will be 8.02 tons per year (formaldehyde) and the total combined HAP will be 11.63 tons per year as shown in Appendix C, page 2 of the July 14, 2022, application for the Part I permit.

6. Public Notice

A public notice is not required for this minor modification.

7. Other Requirements

PE Seal

A PE seal is not required since there are no air pollution capture or control systems being added in accordance with 02Q .0112.

Zoning

There is no expansion of the facility, therefore zoning consistency is not required.

Fee Classification

The facility fee classification before and after this modification will remain “Title V”.

Removing the emergency affirmative defense provisions in operating permits

EPA has promulgated a rule (88 FR 47029, July 21, 2023), with an effective date of August 21, 2023, removing the emergency affirmative defense provisions in operating permits programs, codified in both 40 CFR 70.6(g) and 71.6(g). EPA has concluded that these provisions are inconsistent with the EPA’s current interpretation of the enforcement structure of the CAA, in light of prior court decisions¹.

Moreover, per EPA, the removal of these provisions is also consistent with other recent EPA actions involving affirmative defenses² and will harmonize the EPA’s treatment of affirmative defenses across different CAA programs.

As a consequence of this EPA action to remove these provisions from 40 CFR 70.6(g), it will be necessary for states and local agencies that have adopted similar affirmative defense provisions in their Part 70 operating permit programs to revise their Part 70 programs (regulations) to remove these provisions. In addition, individual operating permits that contain Title V affirmative defenses based on 40 CFR 70.6(g) or similar state regulations will need to be revised.

Regarding NCDAQ, it has not adopted these discretionary affirmative defense provisions in its Title V regulations (15A NCAC 02Q .0500). Instead, DAQ has chosen to include them directly in individual Title V permits as General Condition (GC) J.

Per EPA, DAQ is required to promptly remove such impermissible provisions, as stated above, from individual Title V permits, after August 21, 2023, through normal course of permit issuance.

8. Comments on Draft Permit

The draft permit was sent to the Applicant, Winston-Salem Regional Office, and the Stationary Source Compliance Branch on January 24, 2024, for review.

Transco Comments (email to Ed Martin from Michael Callegari dated January 25, 2024)

Transco had no comments.

WSRO Comments (email to Ed Martin from Dylan Wright dated January 24, 2024)

¹ NRDC v. EPA, 749 F.3d 1055 (D.C. Cir. 2014).

² In newly issued and revised New Source Performance Standards (NSPS), emission guidelines for existing sources, and NESHAP regulations, the EPA has either omitted new affirmative defense provisions or removed existing affirmative defense provisions. See, e.g., National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants; Final Rule, 80 FR 44771 (July 27, 2015); National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule, 80 FR 72789 (November 20, 2015); Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule, 81 FR 40956 (June 23, 2016).

In a marked-up/tracked changes permit, there were minor typos and comments on formatting which were corrected. Other changes were suggested as follows:

1. In the Section 1 table, change the “MACT ZZZZ” designation to “MACT/GACT ZZZZ” for sources AUX-04, AUX-05, and EGEN-01.

Response

This change was made to indicate these sources will remain subject to the MACT ZZZZ requirements while the facility is a major source of HAP and will become subject to GACT ZZZZ requirements when the facility becomes a minor source of HAP.

2. For sources M/L17 and M/L18 in Section 2.1 E.3, should you maybe say that these sources are no longer subject to this rule [MACT YYYY] when it becomes a minor source of HAP emissions?

Response

This was not felt to be necessary since it is understood that they will no longer be subject to MACT YYYY when they become a minor source of HAP.

3. For AUX-04 and AUX-05 in Section 2.1 F.4, I question if this condition needs to be in the permit at all. With the state that AUX-04 and AUX-05 are currently permitted (without controls) they can't comply with these requirements. They would have to modify the permit in order to even operate these engines at a major source of HAPs. Could we just put a condition here that says that the facility can't operate AUX-04 or AUX-05 as they are currently permitted until the facility has become a minor source of HAPs?

Response

It could be done either way, but this is what was discussed in the September 15, 2023 Teams call and gives a more complete picture of all the requirements (before and after they become a minor source of HAP). The HAP avoidance condition does not allow them to operate these until they're a minor source.

There were no comments on the review.

SSCB Comments (email to Ed Martin from Samir Parekh dated January 26, 2024)

SSCB had no comments.

9. Recommendation

Permit issuance is recommended.