

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

**Permit Issue Date:** Date 2005

**Region:** Winston-Salem Regional Office  
**County:** Rockingham  
**NC Facility ID:** 7900131  
**Inspector's Name:** Michael Gendy  
**Date of Last Inspection:** 03/23/2005  
**Compliance Code:** 3/In Compliance - Inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<b>Applicant (Facility's Name):</b> Transcontinental Gas Pipeline Corp  <b>Facility Address:</b> Transcontinental Gas Pipeline Corp 4300 NC 65 Reidsville, NC 27320  <b>SIC:</b> 4923 / Gas Transmission And Distribution <b>NAICS:</b> 48621 / Pipeline Transportation of Natural Gas  <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> NA <b>NSPS:</b> NA <b>NESHAP:</b> 15A NCAC 2D .1111 (Subparts YYYYY, ZZZZ, and DDDDD) <b>PSD:</b> NA <b>PSD Avoidance:</b> NA <b>NC Toxics:</b> 15A NCAC 2Q .0705 <b>112(r):</b> NA <b>Other:</b> NA
<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 7900131.05A <b>Date Received:</b> 12/30/2004 <b>Application Type:</b> Modification <b>Application Schedule:</b> TV-Significant <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 09113/T02 <b>Existing Permit Issue Date:</b> 12/31/2003 <b>Existing Permit Expiration Date:</b> 03/31/2007
Ivory Tatum District Manager (336) 951-2251 4300 NC Highway 65 Reidsville NC, 27320	Mary Whitfield Senior Environmental Scientist (713) 215-4562 P O Box 1396 Houston TX, 77251-1396	Amanda Wickman Environmental Specialist (713) 215-2680 P O Box 1396 Houston TX, 77251-1396	
<b>Review Engineer:</b> Mark Cuilla  <b>Review Engineer's Signature:</b> <b>Date:</b>		<b>Comments / Recommendations:</b> Issue 09113/T03 <b>Permit Issue Date:</b> <b>Permit Expiration Date:</b> March 31, 2007	

**I. Purpose of Application**

Per permit 09113T02, Specific Condition 2.2 B.1.d, the Permittee is required to submit a Title V application within 12 months after commencing operation of the new monitoring procedures. This application completes this requirement.

In addition to this action, the Permittee has requested that the applicable MACT Subparts be placed in its permit (see Section VI of this document for a discussion).

**II. Facility Description**

The facility is a natural gas pumping station. Existing permitted equipment includes sixteen primary and three auxiliary compression units and two internal combustion engines for air supply. The facility operates 24 hours per day, 7 days a week, and 52 weeks per year.

### III. History/Background/Application Chronology

**July 25, 2003** – Permit application **7900131.03A** was received to incorporate an alternative monitoring plan to satisfy the requirements of 15A NCAC 2D .1409. That rule specifies that continuous monitoring (CEMs) shall be used unless an alternative is proposed and approved by the Director. The Permittee proposed such an alternative monitoring plan based on Trapped Fuel/Air Equivalence Ratio Control. The plan approved by DAQ and incorporated into the permit as a 501(c)(2) modification requires that the Permittee establish an hourly NO<sub>x</sub> limit for the ozone season based upon the season cap and the operating hours for each unit. Compliance with 15A NCAC 2D .1409(b) shall be when the three hour average of actual air manifold pressure is less than the calculated air manifold pressure established based on the correlation between engine operating parameters and actual NO<sub>x</sub> emissions during the initial performance tests. In addition, the modification included the following language:

*“The addition of this monitoring is permitted pursuant to 501(c)(2). The permit shield described in General Condition R does not apply. The Permittee shall file a Title V Air Quality Permit Application within 12 months after commencing operation of the new monitoring procedures.”*

**December 31, 2003** – Permit **09113T02** issued.

**December 29, 2004** – Permit application **7900131.05A** was received as required to complete the second part of the two-step significant modification. Permit application was deemed incomplete for processing; the required permit application fee of \$834 was not received.

**August 17, 2005** – DRAFT permit sent to Permittee, Title V Coordinator, and regional office for review prior to being sent to public notice.

**Date, 2005** – DRAFT permit sent to public notice.

### IV. Permit Modifications/Changes

The following table lists all modifications associated with this permit action:

Page(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-put equipment in tabular format -added MACT Subpart reference and asterisked language
Cover	-	-amended all permit revision numbers and associated dates -updated shell language
TOC	-	-updated shell titles
All	Header	-amended permit revision number
3-4	Equipment table	-clarified equipment descriptions -added MACT Subpart references
4	2.1 A (table) 2.1 A.1.a	-corrected permit condition citation and added MACT Subpart reference -added equipment identification numbers
5	2.1 A.1.c 2.1.A.2.c 2.1 B (table) 2.1 B.1.a	-added equipment identification numbers -added equipment identification numbers -added MACT Subpart references -added equipment identification numbers
6	2.1 B.1.c 2.1 B.2.c 2.1 C (table) 2.1 C.1.c	-added equipment identification numbers -added equipment identification numbers -corrected permit condition citation -added equipment identification numbers
7	2.1 C.2.b, c, d, and f.ii	-added equipment identification numbers
8	2.2 A.1 2.2 A.1.c	-corrected permit condition citation -added equipment identification numbers
10	2.2 B.1.d 2.2 B.1.c and d	-removed asterisk and asterisked language -modified language per regional office and Permittee request

Page(s)	Section	Description of Change(s)
11	2.2 C	-added requirements for MACT compliance
11-19	General Conditions	-updated shell conditions

**There were no ESM modifications needed as a result of this permit modification.**

## V. Regulatory Review

The Permittee is subject to the following regulations:

15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources  
15A NCAC 2D .0521, Control of Visible Emissions  
15A NCAC 2D .0524, New Source Performance Standards  
15A NCAC 2D .1409, Stationary Internal Combustion Engines  
15A NCAC 2Q .0317, Avoidance Conditions

No regulatory review is needed as part of this permit action. The Permittee has requested that MACT Subpart placeholders be included in this permit; therefore, the facility will now be subject to 15A NCAC 2D .1111 (40 CFR 63, Subparts ZZZZ, YYYY, and DDDDD). See Section VI of this Document for a discussion.

## VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

### NSPS

The facility is currently subject to the New Source Performance Standards for Stationary Gas Turbines (40 CFR 60, Subpart GG) for a natural gas-fired dry low NOx combustion turbine (**ID No. ES-M/L16**). This permit action does not affect this status.

### NESHAPS/MACTS

The current permit does not subject the facility to any National Emission Standards for Hazardous Air Pollutants/Maximum Achievable Control Technology Standards. However, the Permittee has requested that placeholder language for compliance with all future MACTs be included at this time. As a result of this request the following language has been added to the permit in Section 2.2 requiring compliance by the deadline contained in each of the respective Subparts.

### C. Facility-wide affected sources

*The following table provides a summary of limits and standards for the emission source(s) described above:*

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Hazardous air pollutants	Stationary Reciprocating Internal Combustion Engines MACT	15A NCAC 2D .1111 (40 CFR 63, Subpart ZZZZ)

### 1. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

*The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", by June 15, 2007, for all existing engines. [40 CFR 63.6595]*

The applicability of Subpart ZZZZ applies to all existing and new internal combustion engines with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions [40 CFR 63.6590]. The facility currently has 15 internal combustion engines that meet that size cut-off. The remaining five engines (**ID Nos. ES-AUX1, AUX2, AUX3, A/C1 and A/C2**) do not meet the criteria.

The applicability of Subpart YYYY applies to all existing, new or reconstructed stationary combustion turbines [40 CFR 63.6085]. The facility currently operates on natural gas-fired dry low NOx combustion turbine (rated at 15,000 hp output and 122 million Btu per hour heat input; **ID No. ES-M/L16**). However, per 63.6090(b)(4), all existing stationary combustion turbines in all subcategories do not have to meet the requirements of this subpart and of subpart A. This notation has been made in the permit signifying that the equipment is subject to the Subpart but has no requirements.

The applicability of Subpart DDDDD applies to all existing and new industrial, commercial, and institutional boilers and process heaters. The requirements of the Subpart are based on a combination of boiler attributes (e.g., size, type, and fuel type). The facility has one subject boiler (**ID No. ES-BLR2**). This existing, natural gas-fired, small boilers fall into Population I category of sources with no requirements. The permit notes that this boiler is subject to the Subpart but has no applicable requirements per 63.7506(c).

**PSD**

The facility is currently subject to a PSD avoidance condition that limits nitrogen oxide emissions from one two-cycle natural gas lean-fired internal combustion engine (**ID No. ES-M/L10**) and one natural gas-fired dry low NOx combustion turbine (**ID No. ES-M/L16**) to less than 37.5 pounds per hour and 15 pounds per hour, respectively. This permit activity does not affect this status.

**112(r)**

Section 112(r) does not apply to the facility because the plant does not store any chemicals greater than the thresholds in the rule. This permit activity does not affect this status.

**CAM**

Per the applicability of Part 64, Compliance Assurance Monitoring, the Permittee is not subject to any CAM requirements because it currently does not “use a control device to achieve compliance with any emission limitation or standard.”

**VII. Facility Wide Air Toxics**

The facility is not currently subject to an air toxics demonstration. This permit activity does not affect this status. It should be noted that the requirements for the submittal of a toxics demonstration at the time of compliance with the facility’s last MACT (15A NCAC 2Q .0705) do not apply at this time because of the exemption of combustion source MACTs under this rule.

**VIII. Facility Emissions Review**

The following table lists the reported emission summary for the most recent year’s inventory:

<b>Pollutant</b>	<b>2003 Actual Emissions (tons/year)</b>
CO	1126.36
NO <sub>x</sub>	4590.73
PM <sub>10</sub>	46.56
SO <sub>2</sub>	0.85
VOC	229.04
Total HAPs/TAPs	142.09

**IX. Stipulation Review**

Specific permit condition 2.2 B.1 is being modified to remove the asterisked language requiring that a permit application shall be submitted and that also indicates that the permit shield does not apply to the newly created monitoring and recordkeeping requirements. No other permit conditions are being modified at this time.

WSRO had the following comments on the current permit conditions for another Transco facility (*the reason it is being brought up here is to make the two identical permits similar with any potential modification*):

1. Clarify the meaning of “annual” in condition 2.2 A.1.c as either “calendar year” or “12 months from the date of the last emission test.” WSRO recommends “calendar year” as this would give the facility some flexibility in the testing date. *Agree; change has been made to add calendar year per WSRO suggestion.*

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

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons of the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521. The Mecklenburg and Forsyth County Local Programs are affected local programs and Virginia is an affected State.

**XI. Conclusions, Comments, and Recommendations**

WSRO recommends issuance of the modified permit and was presented with a DRAFT prior to permit issuance. RCO concurs with this recommendation.