

**Pre-Application Meeting at NHDES
Northeast Energy Direct Project
September 15, 2015**

**Proposed Compressor Station, New Ipswich, NH
("Market Path Mid Station 4")**

Description of Proposed Station

- Primary air emission sources:

Two (2) Solar Titan 130 compressor turbines w/oxidation catalyst on exhaust - 168 MMBtu/hr, 20,863 HP @0°F
One (1) Caterpillar G3616C emergency generator – 16.5 MMBtu/hr, 1,506 kW, 2,175 HP
One (1) Parker heating boiler – 4.6 MMBtu/hr.

All to be fueled with pipeline quality natural gas only.

- Miscellaneous fugitive sources (VOCs)

Pipeline liquids storage tank, compressor blowdowns, and equipment fugitives from piping components.

Attainment status

- SO₂, NO_x, PM₁₀, PM_{2.5}, CO, and O₃: Unclassifiable/attainment per 40 CFR Part 81.330.
- NH part of the Northeast Ozone Transport Region (OTR), therefore, Project area must be treated as moderate ozone nonattainment for VOC and NO_x.
- NH currently SIP approved regulations currently treat Hillsborough County as serious nonattainment area per SIP-approved Env-A 610.01(a)(2)b.¹ (defines major source threshold as 50 TPY for NO_x and VOC). Nonattainment New Source Review is currently in the NH regulations under Env-A 618, which refers to nonattainment designations as found under the OTR and §81.330, where the 1-hour ozone serious designation has been revoked as of June 15, 2005.

Preliminary Applicability Analysis

- Below major source thresholds for nonattainment New Source Review and Prevention of Significant Deterioration (Env-A 618 and 619, respectively).
- The compressor turbines and emergency generator require a Temporary Permit pursuant to Env-A 607.01(d)(1) and (2) to authorize construction because they have a heat input greater than 10 MMBtu/hr.
- Compressor turbine emissions in Table 1.

¹ EPA SIP-approved as of February 6, 2012, published in Federal Register 77 FR 5700
http://www.epa.gov/region1/topics/air/sips/nh/Revised_2003_ENV_A_600_NH.pdf

Regulatory Requirements

- State BACT - Compressor turbines will not subject to State BACT since firing natural gas exclusively. This is found in the New Hampshire Statutes RSA 125-C:10-b VII.(c) which states construction, installation, operation, or modification of any device that will combust any material shall obtain a permit establishing BACT unless exempted. An exemption in the statute says it does not apply to sources which burn at least 90% by weight "exempt fuel". Exempt fuel is defined as coal, natural gas, landfill gas, digester or bio gas, untreated wood, virgin petroleum products, or any mixture thereof.
- NSPS - turbines subject to Subpart KKKK; emergency engine subject to Subpart JJJJ, storage tank emissions are insignificant and will be well below 6 ton/yr VOC to avoid Subpart OOOO applicability, heater/boiler is below 10 MMBtu/hr threshold for Subpart Dc. The heater will also be exclusively fired by pipeline quality natural gas, thus being exempt for that reason also. *Proposed NSPS Subpart OOOOa is expected to only apply to fugitive piping components if the station commences construction after the final date of the rule. MACT - turbines will not be subject to Subpart YYYYY since the emissions will be less than HAP major source thresholds; emergency engine subject to Subpart ZZZZ but will meet requirements through Subpart JJJJ. Station will not subject to Subpart HHH because it will not be a major source of HAP.
- NO_x RACT - turbines comply since < 25 ppm; emergency generator not applicable since station NO_x < 50 tons per year and generator < 500 hours per year.

Dispersion Modeling

- Dispersion modeling is required for sources which require Temporary Permit under Env-A 607.01.
- Emergency generator not required to be included in modeling analysis per Env-A 606.02(c)(1) since operation will be limited to less than 500 hours per year.
- Modeling Applicability Flowchart - criteria pollutant modeling required for compressor station for CO only. Flowchart incorporates Env-A 606.06(c) which establishes criteria for NO_x, SO₂ and PM₁₀ where if met, modeling is not required. The turbines meet the criteria for each pollutant.
 - NO_x - meets NO_x RACT (25 ppm)
 - SO₂ - meets 0.025 lb/ MMBtu (using AP-42 factor of 0.0034 lb/MMBtu)
 - PM₁₀ - meets 0.10 lb/MMBtu (Solar Turbines factor is 0.015 lb/MMBtu)
- Non-criteria pollutant modeling not required per Env-A 1402.02(a)(2) since firing natural gas only.

Schedule

- Application submittal November 2015.

Table 1 – Proposed Titan 130 Compressor Turbines

Pollutant	Typical Emissions >0°F (ppmvd @ 15% O ₂ unless noted)		
	Titan 130	NSPS	State Limit
NO _x	9	25	25 (NO _x RACT)
CO	25 (uncontrolled) 2.5 (with 90% control from oxidation catalyst control)	NA	NA
VOC	5 (uncontrolled, based on 20% of UHC) 3 (based on 40% control from oxidation catalyst)	NA	NA
SO ₂	0.0034 lb/MMBtu, ~ <0.05 lb/MWh (eq.)	0.06 lb/MMBtu 0.90 lb/MWh	NA, 0.025 lb/MMBtu threshold for modeling
PM (total, including condensables)	0.0066 lb/MMBtu	NA	0.15 (TSP only) 0.10 lb/MMBtu threshold for modeling



NIXON PEABODY LLP
ATTORNEYS AT LAW
NIXONPEABODY.COM
@NIXONPEABODYLLP

W. Scott O'Connell
Partner
T 603-628-4087
F 866-947-1393
soconnell@nixonpeabody.com

900 Elm Street
Manchester, NH 03101-2031
603-628-4000

December 23, 2015

BY E-MAIL AND FIRST CLASS MAIL

Pamela.Monroe@sec.nh.gov

Pamela G. Monroe
Administrator
State of New Hampshire
Site Evaluation Committee
21 S. Fruit St., Suite 10
Concord, NH 03301-2429

RE: Northeast Energy Direct Project ("NED" or the "Project")
SEC 2015-08

Dear Ms. Monroe:

This firm represents Tennessee Gas Pipeline Company, L.L.C. ("Tennessee") with regard to the NED Project referenced above. The Project is an interstate natural gas pipeline regulated by the Federal Energy Regulatory Commission ("FERC") under the National Gas Act and related regulations. On November 20, 2015, Tennessee filed its application for this Project with FERC (Docket No. CP-21-000).

In connection with this FERC filing, Tennessee submitted a temporary air permit application to the NHDES Air Resources Division for a compressor station in New Ipswich. This submission demonstrates that the proposed facility will comply with all applicable emissions and ambient air quality standards and control technology requirements, established by both the NHDES and the USEPA.

It is understood, based on a recent discussion between the Tennessee project team and NHDES' ARD permit staff, that the NED ARD permit application will not be reviewed by the NHDES until after the full NED Project application, with a copy of a NHDES temporary air permit application attached, has been submitted to the Site Evaluation Committee. As stated at the three recent public information sessions held in Rockingham, Cheshire and Hillsborough Counties, Tennessee anticipates filing its application with the Site Evaluation Committee during the first quarter of 2016.

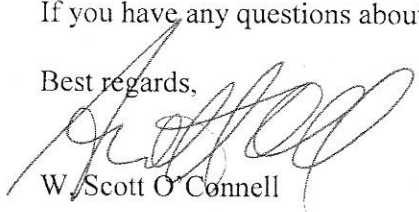
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NIXON PEABODY LLP
ATTORNEYS AT LAW

NIXONPEABODY.COM
@NIXONPEABODYLLP

If you have any questions about this letter, please call.

Best regards,



W. Scott O'Connell

WSO/cln

cc: Tennessee Gas Pipeline Company, L.L.C.