



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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COMMISSIONER

**Maritimes & Northeast Pipeline, LLC
Cumberland County
Westbrook, Maine
A-957-70-A-I**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License**

After review of the Part 70 License application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Maritimes & Northeast Pipeline, LLC
INITIAL LICENSE NUMBER	A-957-70-A-I
LICENSE TYPE	Initial Part 70 License
NAICS CODES	486210 Pipeline Transportation of Natural Gas
NATURE OF BUSINESS	Natural Gas Compressor Station
FACILITY LOCATION	420 Small Hardy Road, Westbrook, Maine

The Maritimes & Northeast Pipeline is a natural gas transmission pipeline that brings offshore, onshore, and liquefied natural gas (LNG)-sourced natural gas from Atlantic Canada to North American markets. Of the 670 miles of pipeline in this transmission system, 340 of those miles are in the United States, extending through Maine, New Hampshire, and Massachusetts, where it then connects with other transmission lines. Located at strategic points along the system, compressor stations maintain the pressure and velocity of the natural gas as it travels long distances through the pipeline. Maritimes & Northeast Pipeline, LLC's Westbrook Compressor Station is addressed in this license.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

<u>Emission Unit ID</u>	<u>Unit Capacity, MMBtu/hr</u>	<u>Max. Natural Gas Firing Rate, scf/hr</u>	<u>Control Equipment</u>	<u>Stack #</u>	<u>Unit Type</u>
Turbine #1	139.7	137,004	SoLoNO _x II	1	Combustion Turbine
Turbine #2	139.7	137,004	SoLoNO _x II	2	Combustion Turbine
Generator #1	5.02	4,920	None	3	Emergency Generator
Boiler #1	3.5*	3432	None	4	Boiler

*Note: Unit capacity for Boiler #1 is based on boiler nameplate.

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17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Maritimes & Northeast Pipeline, LLC has additional insignificant activities which are not listed in the table above. A list of these insignificant activities can be found in the Part 70 license application and in 06-096 CMR 140, *Part 70 Air Emission License Regulations* (as amended), Appendix B.

C. Application Classification

Maritimes & Northeast Pipeline, LLC (M&N) located in Westbrook, Maine was issued Air Emission License A-957-71-A-N on February 5, 2007, permitting the operation of emission sources associated with this gas compressor station. License amendment A-957-71-B-A, issued January 22, 2009, addressed revised and updated emissions information for the facility, including refined estimates of potential emissions associated with both combustion and non-combustion sources and identification of natural gas releases which may occur. The 2009 amendment also included a volatile organic compounds (VOC) emissions cap for the facility to maintain minor source status.

An application for license renewal was accepted for processing on January 3, 2012. However, with the regulation of greenhouse gases (GHG) emissions enacted since this facility's previous air license was issued, sources are required to evaluate their potential to emit GHG on a carbon dioxide equivalent (CO₂e) basis for comparison against applicability thresholds for a Part 70 major source air emission license [06-096 CMR 140 (as amended)]. This facility's potential to emit GHG is greater than the 100,000 tons per year (tpy) threshold; therefore, M&N is subject to Part 70 air licensing requirements.

The application for M&N does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be an initial Part 70 License issued under 06-096 CMR 140 (as amended).

II. EMISSION UNIT DESCRIPTIONS

According to 06-096 CMR 140 §3(D)(3), emissions of existing sources undergoing issuance of the initial Part 70 license shall be deemed to be receiving Best Practical Treatment (BPT) if those emissions are being controlled by pollution control apparatus which was installed less than 15 years prior to the date of license application approval. All equipment at this facility has been operating less than 15 years from date of installation. Thus, BPT determinations for this license are based on previous Best Available Control Technology (BACT) determinations.

A. Turbines #1 and #2

M&N operates two Solar Mars Model 100-15002S3 combustion turbines, both manufactured in 2008, to provide power to recompress and move natural gas

through the transmission pipeline. Turbines #1 and #2 each have a maximum heat input of 139.7 MMBtu/hr and fire only pipeline quality natural gas.

Turbines #1 and #2 are subject to New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines* for which construction commenced after February 18, 2005. Subpart KKKK regulates emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) from Turbines #1 and #2. Turbines subject to Subpart KKKK are exempt from NSPS 40 CFR Part 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines* for which construction commenced after October 3, 1977.

Both turbines received a Best Available Control Technology (BACT) determination in the initial air emission license in 2007 and in the subsequent amendment in 2009. The following are the accepted BACT/BPT practices for Turbines #1 and #2:

PM, PM ₁₀	Good Combustion Practices
SO ₂	Firing of Pipeline Quality Natural Gas
NO _x	SoLoNO _x II Combustion Technology
CO	SoLoNO _x II Combustion Technology
VOC	SoLoNO _x II Combustion Technology
HAP	Good Combustion Practices

Operation at Low Temperatures

Maximum hourly compressor turbine emissions are dependent upon the ambient temperature. The turbine control systems are programmed to increase pilot fuel when the ambient temperature drops below zero degrees Fahrenheit (0°F) to maintain combustion stability. As a result, emissions increase at these temperatures. M&N used ambient temperature data from Bucksport, Maine as most appropriate in order to give a conservative value upon which to base potential to emit (PTE) calculations. This license provides for increased emissions during periods when the ambient temperature falls below 0°F, consistent with the NSPS Subpart KKKK limits for cold temperature operation.

Emission Limits and Streamlining

1. Particulate Matter (PM, PM₁₀)

Units firing fuels with low ash content and high combustion efficiency exhibit low particulate matter emissions. The most stringent particulate control method demonstrated for gas turbines is the use of low ash fuel such as natural

gas. A previous BACT analysis established as BACT for PM and PM₁₀ the firing of only pipeline quality natural gas, with the following emission limits: 0.01 lb/MMBtu PM or PM₁₀, regardless of ambient temperature; 0.92 lb/hr PM or PM₁₀ at ambient temperatures greater than 0°F; and 0.95 lb/hr PM or PM₁₀ at ambient temperatures less than or equal to 0°F. No streamlining was requested.

2. Sulfur Dioxide (SO₂)

Sulfur dioxide is formed from the oxidation of sulfur in fuel. The most stringent method of control for SO₂ demonstrated for gas fired turbines is firing pipeline quality natural gas. The Department has accepted this as BACT/BPT for SO₂ emissions control from Turbine #1 and Turbine #2 with limits of 0.48 lb/hr at ambient temperatures greater than 0°F; and 0.49 lb/hr at ambient temperatures less than or equal to 0°F. No streamlining requested.

3. Nitrogen Oxides (NO_x)

Nitrogen oxides emitted from the combustion turbine result from the oxidation of both fuel bound nitrogen and atmospheric nitrogen (thermal NO_x). Natural gas contains very little fuel bound nitrogen. Therefore, reducing NO_x emissions must focus on reducing the thermal NO_x component. M&N uses SoLoNO_x Combustion Technology, which employs lean-premixed combustion techniques. The premixing of fuel and air prior to the combustor primary zone helps to ensure that the fuel burns under fuel lean conditions, thus lowering flame temperature and minimizing thermal NO_x formation.

The latest improvements to the SoLoNO_x Combustion Technology include the addition of augmented backside cooled (ABC) liners and an advanced thermal barrier coating (TBC). The ABC liners eliminate air injection into the combustor for wall cooling. The wall temperatures are controlled exclusively through convective cooling by high velocity air flow on the cold side of the liner. The TBC is a zirconia-based material that is plasma-sprayed onto the liner which reduces wall temperature. The ABC/TBC combination allows operation without air injection for cooling of the combustor liner, which eliminates quenching along the walls, and thereby reduces CO emissions. The reduction of CO levels allows the combustor to be operated at lower flame temperatures, which also reduces NO_x formation. Combustors built with the additional ABC/TBC technology are marketed as SoLoNO_x II.

The Department has concluded BACT/BPT for NO_x emissions shall consist of operating the turbines with SoLoNO_x II Combustion Technology. NSPS, Subpart KKKK contains a NO_x emission limit of 25 ppmvd at 15% O₂ for temperatures greater than or equal to 0°F, and 150 ppmvd at 15% O₂ for

temperatures less than 0°F and loads less than 75% of peak load [40 CFR Part 60, Subpart KKKK, Table 1].

BACT/BPT for ambient temperatures above 0°F shall be a NO_x emission limit of 15 ppmvd at 15% O₂ and 7.55 lb/hr. BACT/BPT for cold weather operations (at ambient temperatures less than or equal to 0°F) shall be the NSPS limit of 150 ppmvd at 15% O₂ and 62.21 lb/hr. No streamlining was requested.

4. Carbon Monoxide (CO)

Emissions of CO result from the incomplete combustion of gas in the turbines. The turbines are guaranteed to achieve 25 ppmvd at 15% O₂ above 0°F. The gas turbines use a dry low NO_x combustor system and integrated burner controls with staged premixed combustion zones and fuel feed systems to achieve the required low NO_x emissions. Additional CO reductions are attributed to the ABC/TBC technology described above.

M&N employs SoLoNO_x II combustor technology and associated good combustion practices, instrumentation, and controls as BACT/BPT for CO, with emission limits of 7.66 lb/hr at ambient temperatures above 0°F and 47.34 lb/hr at ambient temperatures less than or equal to 0°F. This has been accepted by the Department. No streamlining was requested.

5. Volatile Organic Compounds (VOC)

The majority of VOCs that are emitted from gas fired turbines come from unburned hydrocarbons. Control of VOCs is accomplished by providing adequate fuel residence time and high temperature in the combustion zone to ensure complete combustion. The Department has accepted combustion control, via the SoLoNO_x II technology, and emission limits of 0.96 lb/hr at ambient temperatures above 0°F and 2.96 lb/hr at ambient temperatures less than or equal to 0°F as BACT/BPT for VOC emission control from Turbine #1 and Turbine #2. No streamlining was requested.

6. Hazardous Air Pollutants (HAP)

Formaldehyde is the only organic compound which is also a HAP that is emitted in more than a negligible amount. Total annual emissions are less than 2 tons/year, substantially below the 10 tons/year major source threshold. Good combustion practices with a state of the art combustion system ensure complete combustion of organic constituents of the fuel stream. Therefore, good combustion practices represents and has been accepted as BACT/BPT for the control of HAP.

7. Opacity

Visible Emission Regulation, 06-096 CMR 101 (as amended), §2(B)(c) requires that visible emissions from each of the turbines shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. No streamlining required.

Fuel Monitoring

In accordance with 40 C.F.R. § 60.4365(a), M&N will demonstrate compliance with the total sulfur content of the fuel requirements by maintaining a current tariff sheet for the fuel specifying that the maximum total sulfur content of the gas is no greater than 20 grains of sulfur per 100 standard cubic feet.

Low Compressor Speeds

According to the turbine manufacturer and M&N, operation of SoLoNO_x II for these units is adversely affected at gas producer speeds below 92% of capacity. During operating conditions at or above this gas producer speed, the majority of the fuel (90-100%) is lean-premixed fuel and the balance is pilot fuel. However, when the gas producer speed falls below 92%, the fuel ratio shifts to a higher portion of pilot fuel, causing increased NO_x and CO emissions.

To address this, M&N uses a programming interlock in its control software to ensure that after the units are brought on line, they do not operate below a gas producer speed of 92% except as part of the start-up and shut-down process. M&N estimates that the likely number of startup/shutdown (SU/SD) events that occur is 65 SU/SD per year per compressor unit and have included data to account for SU/SD emissions as part of the plant's PTE calculations.

Summary of Emission Limits

Except during periods of start-up or shut-down, Turbines #1 and #2 shall each not exceed the following limits at ambient temperatures greater than 0°F:

<u>Pollutant</u>	<u>ppmvd @ 15% O₂</u>	<u>lb/hr</u>	<u>lb/MMBtu</u>	<u>Citation</u>
PM	--	0.92	0.01	06-096 CMR 115, BPT
PM ₁₀	--	0.92	0.01	06-096 CMR 115, BPT
SO ₂	--	0.48	--	06-096 CMR 115, BPT
NO _x	15	7.55	--	06-096 CMR 115, BPT
CO	--	7.66	--	06-096 CMR 115, BPT
VOC	--	0.96	--	06-096 CMR 115, BPT

Except during periods of start-up or shut-down, Turbines #1 and #2 shall each not exceed the following limits at ambient temperatures less than or equal to 0°F:

Pollutant	ppmvd @ 15% O₂	lb/hr	lb/MMBtu	Citation
PM	--	0.95	0.01	06-096 CMR 115, BPT
PM ₁₀	--	0.95	0.01	06-096 CMR 115, BPT
SO ₂	--	0.49	--	06-096 CMR 115, BPT
NO _x	150	62.21	--	40 CFR 60, Subpart KKKK and 06-096 CMR 115, BPT
CO	--	47.34	--	06-096 CMR 115, BPT
VOC	--	2.96	--	06-096 CMR 115, BPT

Turbine Case Venting and Station Piping Venting

After a turbine sits idle for up to two weeks, it is decompressed and vented to the atmosphere to prevent undue stress on the joints and damage to equipment. The turbine is also decompressed and vented when maintenance work is done on the turbine. It is estimated that the total annual VOC emissions from the station from venting activities is approximately 15.5 ton/year. M&N shall keep records as specified to document turbine case ventings.

In addition to actual emergency shutdowns (ESD), M&N performs ESD testing and routine maintenance of station piping which result in venting natural gas to the atmosphere. These activities are necessary for safety reasons, and no specific emission limit is imposed to restrict these activities. M&N shall notify the Department as specified of any release that results in more than 85,000 scf of natural gas.

As described in the previous paragraphs, proper operation and maintenance of the compressor station requires occasional venting of gas from certain portions of the facility. Because this gas is the commodity that M&N is delivering to the market, ventings are minimized and only conducted when necessary. Ventings occur either through the case vent stack or the station vent stack, both of which are fitted with flame arrestors before the stack exit. The venting stacks are designed to optimally disperse vented gases to prevent flammable concentrations and minimize air pollution impacts.

CEMS and COMS

Due to the capacity of each turbine, no continuous opacity monitoring system (COMS) is required. [*Source Surveillance–Emissions Monitoring*, 06-096 CMR 117 § 1 (B)(1) (dated May 18, 2011)]

Because this facility does not have the potential to emit quantities of NO_x emissions greater than or equal to 100 tpy, no continuous emissions monitoring system CEMS for NO_x emissions is required. [06-096 CMR 138 § 1(A)]

Because pipeline quality natural gas is the fuel combusted in Turbine #1 and Turbine #2, no CEMS for SO₂ emissions is required. [06-096 CMR 117 §1(B)(1)(a)]

B. Generator #1

M&N operates a 5.02 MMBtu/hr (585 HP) Emergency Generator, a 4-stroke lean-burn Waukesha model VGF24GL that combusts natural gas. The generator was manufactured in August 2008.

Emission Limits

06-096 CMR 103 regulates particulate matter emissions from combustion sources. The previous BACT analysis determined a more stringent limit of 0.01 lb/MMBtu (based on AP-42 data) was appropriate, but that determination was based on boiler emission factors and not on generator emission factors. In accordance with more accurate application of AP-42 emission factors and 06-096 CMR 103, the Department finds that a PM limit of 0.12 lb/MMBtu is appropriate and represents BACT for this emergency generator. [06-096 CMR 103§2(B)(1)(a)] The PM₁₀ limits are derived from the PM limits.

A summary of the previously licensed BACT emission limits for Generator #1 is provided, based on a maximum firing rate of 4920 scf/hr of natural gas (using a fuel heating value of 1020 BTU/scf natural gas) and the following:

- PM, PM₁₀ – 0.12 lb/MMBtu, 06-096 CMR 103
10.19 lb/MMscf, AP-42 Table 3.2-2 (7/00)
Because the PM and PM₁₀ limits based on the AP-42 factor, as previously licensed, are more stringent than the limits based on the 06-096 CMR 103 factor, the more stringent limits are considered BACT/BPT and are used to calculate hourly and annual emission limits for this license.
- SO₂ – 0.60 lb/MMscf, AP-42 Table 3.2-2 (7/00)
- NO_x – 524.3 lb/MMscf, manufacturer's data
- CO – 458.77 lb/MMscf, manufacturer's data
- VOC – 196.61 lb/MMscf, manufacturer's data
- Opacity – 06-096 CMR 115, BACT

Emissions shall not exceed the following [06-096 CMR 115, BPT]:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Generator #1 (5.02 MMBtu/hr)	PM	0.12

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator #1 (5.02 MMBtu/hr)	0.05	0.05	0.003	2.58	2.26	0.97

Visible emissions from Generator #1 shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

Generator #1 shall be limited to 500 hr/yr of operation based on a 12-month rolling total. [06-096 CMR 115, BPT] Compliance shall be demonstrated by a written log of all generator operating hours.

“Emergency Generator” is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor used to supply power to an electric grid as part of a financial arrangement with an independent system operator (ISO) or another entity.

40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)*, applies to any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. Generator #1 is considered a new stationary RICE located at an area source of HAP emissions because construction commenced on or after June 12,

2006. Therefore, Generator #1 must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of New Source Performance Standards at 40 CFR Part 60, Subpart JJJJ. [40 CFR Part 63, §63.6590 (c)(1)]

40 CFR Part 60, Subpart JJJJ

The Federal Regulation 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE)* applies to owners and operators of stationary SI ICE that commence construction after June 12, 2006. Generator #1 was constructed after June 12, 2006; however, the provisions of this subpart are not applicable to Generator #1 since the unit is an emergency generator with a maximum engine power greater than 25 HP that was manufactured before January 1, 2009. [40 CFR Part 60, §60.4230 (a)(4)(iv)]

C. Boiler #1

M&N operates Boiler #1, a natural gas fired, Cleaver-Brooks model manufactured 3/10/2008 with a maximum heat input of 3.5 MMBtu/hr. Because of its size, Boiler #1 is not subject to NSPS 40 CFR Part 60, Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

Since natural gas is the only fuel fired in Boiler #1, it is not subject to 40 CFR Part 63 Subpart JJJJJ *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* [40 CFR Part 63 Subpart JJJJJ, § 63.11195 (e)].

Emission Limits

A summary of the previously licensed BACT emission limits for Boiler #1 is provided, based on a maximum firing rate of 3432 scf/hr of natural gas (using a fuel heating value of 1020 BTU/scf natural gas) and the following:

- PM, PM₁₀ – 0.05 lb/MMBtu, 06-096 CMR 115, BACT
7.6 lb/MMscf, AP-42, Table 1.4-2 (date 7/98)
Because the PM and PM₁₀ limits based on the AP-42 factor, as previously licensed, are more stringent than the limits based on the 06-096 CMR 115 factor, the more stringent limits are considered BACT/BPT and are used to calculate hourly and annual emission limits for this license.
- SO₂ – 0.6 lb/MMscf, AP-42, Table 1.4-2 (dated 7/98)
- NO_x – 75.0 lb/MMscf, vendor data, lower than AP-42 value
- CO – 38.0 lb/MMscf, vendor data, lower than AP-42 value
- VOC – 5.5 lb/MMscf, AP-42, Table 1.4-2 (dated 7/98)
- Opacity – 06-096 CMR 101

Boiler #1 emissions shall not exceed the following [06-096 CMR 115, BPT]:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Boiler #1 (3.5 MMBtu/hr)	PM	0.05

Note: Unit capacity is based on boiler nameplate.

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #1	0.03	0.03	0.002	0.29	0.15	0.02

Visible emissions shall not exceed 10% opacity on a six (6) minute block average basis except for one (1) six (6) minute average in a three (3) hour period.

D. Degreaser Unit

M&N was originally licensed to install and operate a Safety-Kleen degreaser in compliance with 06-096 CMR 130. This unit was never installed at the facility. At the request of M&N, this unit is hereby removed from the air emission license.

E. Fugitive Emissions

Fugitive emissions at this source could originate from several functions and locations within the facility. The following are several of the larger potential sources of fugitive emissions.

Metering Station

An existing natural gas metering station, known as the Portland Natural Gas Transmission Station (PNGTS) Inlet Meter Station, was constructed in 1998-1999. The PNGTS Inlet Meter Station is located approximately 1,000 feet downhill from the compressor station and is included in the facility's potential to emit (PTE) calculations. The only emissions associated with this equipment come from natural gas releases associated with periodic "blowdowns," in which the gas is evacuated to the atmosphere for routine operation or maintenance purposes, purging of the lines following blowdowns, gas releases associated with the operation of pneumatic equipment, and fugitive sources. The PNGTS Inlet Meter Station is considered part of M&N's facility, and emissions from the Meter Station shall be included in determining compliance with the facility's annual VOC emission limit. [06-096 CMR 115, BACT]

Facility Components

Fugitive emissions of VOC occur from leakage of valves, pump and compressor seals, connectors, flanges, etc. Quantification of VOC emissions from periodic

blowdown and fugitive sources was originally based on an estimate of the number and size of the components in a similar existing compressor station. These estimates have been revised to reflect the actual counts and capacities of station components that are shown on the final construction drawings.

F. Facility VOC Emissions

M&N's Westbrook facility shall not exceed annual VOC emissions of 49.0 tpy. Although total licensed VOC emissions will exceed 40 tpy, the threshold for applicability of 06-096 CMR 134 *Reasonably Available Control Technology For Facilities That Emit Volatile Organic Compounds (VOC-RACT)*, all VOC emitting equipment has received BACT and is therefore exempt from further controls, per 06-096 CMR 134 §1(C)(2).

VOC Cap Compliance Assurance

M&N shall maintain the following records to demonstrate compliance with its annual VOC emission limit [06-096 CMR 115, BACT]:

1. M&N shall track the actual operating hours and fuel use for the two turbines and calculate on a monthly basis actual VOC emissions from the burning of natural gas in the turbines.
2. M&N shall maintain a log that contains the following information for all turbine case ventings, ESD events, maintenance blowdowns, gas purges, and liquid purges:
 - a. Date of the event;
 - b. Estimated or actual event start time;
 - c. Estimated or actual event duration;
 - d. Release point ID;
 - e. Gas release source ID;
 - f. Gas release type (e.g. turbine case venting, ESD, blowdown, purge);
 - g. Event type (e.g. shutdown, maintenance, testing, or malfunction);
 - h. Description of event;
 - i. Estimate of the volume of natural gas vented;
 - j. Estimate of the VOC density of the released gas; and
 - k. Calculation of the tons of VOC emitted based on the VOC content of the gas released.
3. M&N shall check for the presence of pipeline liquids on a monthly basis and calculate actual fugitive emissions associated with this source monthly.
4. M&N shall maintain an inventory of actual piping components by type for each service category. This inventory shall be used in calculating actual

emissions from these components in demonstrating compliance with the annual VOC emissions cap.

5. M&N may implement a Leak Detection and Repair (“LDAR”) Program to assist in demonstrating compliance with the facility’s VOC emission limit. The LDAR Program will be designed to identify equipment components that emit sufficient amounts of VOC to warrant reduction of emissions through detection and repair of leaks. If use of an LDAR program is necessary to demonstrate compliance with the proposed annual VOC emission limits contained in this license, M&N will submit to the Department a proposed LDAR program consistent with U.S. Environmental Protection Agency (EPA) protocol and guidance.

G. Facility Emission Limits

Each of the sources described above received a BACT determination in the initial air emission license in 2007 and the subsequent amendment in 2009. BPT in this license remains unchanged from the BACT determinations previously made.

1. M&N shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on ambient temperature data indicating 81 hours per year of operation at ambient temperatures less than or equal to 0°F; 8760 hr/yr of operation of Turbines #1 and #2, including 10 hr/yr of total startup time and 9 hr/yr of total shutdown time; 500 hr/yr of operation of Generator #1; and 8760 hr/yr for Boiler #1.

Total Licensed Annual Emission for the Facility
Tons/year
 (used to calculate the annual license fee)

	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Turbine#1	3.8	3.8	1.9	31.0	41.0	4.0
Turbine #2	3.8	3.8	1.9	31.0	41.0	4.0
Generator #1	0.1	0.1	--	0.6	0.5	0.2
Boiler #1	0.1	0.1	--	1.1	0.6	0.1
Gas Releases and Fugitives	--	--	--	--	--	40.7
Total TPY	7.8	7.8	3.8	63.7	83.1	49.0

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011 through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in

06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use and operating limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, potential emissions from Turbines #1 and #2 alone are above the major source threshold of 100,000 tons of CO₂e per year. M&N also emits GHG from turbine case venting and station piping venting events. The Department does not find the determination of emission limits for GHG emissions from this facility appropriate or necessary at this time.

H. Compliance Assurance Monitoring

This facility is a Part 70 source solely due to GHG emissions, and there is no emission limitation or standard for GHG or CO₂e; therefore, there are no compliance assurance monitoring (CAM) requirements for this facility. [40 CFR § 64 (2)(a)(1)]

III. AIR QUALITY ANALYSIS

According to 06-096 CMR 140, an existing Part 70 source shall be exempt from an impact analysis with respect to a regulated pollutant whose allowable emissions do not exceed the following:

<u>Pollutant</u>	<u>Tons/year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on facility license allowed emissions, M&N is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source

- will receive Best Practical Treatment;

- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-957-70-A-I pursuant to 06-096 CMR 140, subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Maritimes & Northeast Pipeline, LLC pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such, the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

- (1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the Clean Air Act (CAA) unless specifically designated as state enforceable; [06-096 CMR 140]

- (4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement; [06-096 CMR 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
- A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated February 2012. [06-096 CMR 140]

	<u>SOURCE</u>	<u>CITATION</u>	<u>DESCRIPTION</u>	<u>BASIS FOR DETERMINATION</u>
A	Turbines #1 and #2	40 CFR Part 60, Subpart GG	<i>Standards of Performance for Stationary Gas Turbines</i> for which construction commenced after Oct. 3, 1977	Turbines subject to 40 CFR Part 60, Subpart KKKK are exempt from Subpart GG.
B	Turbines #1 and #2	06-096 CMR 117 § 1 (B)(1)	continuous opacity monitoring requirement (COM)	Natural gas is the only fuel.
C	Turbines #1 and #2	06-096 CMR 138 § 1(A)	NO _x RACT, (CEMS) for NO _x emissions	Facility's PTE is less than 100 tpy NO _x .

	<u>SOURCE</u>	<u>CITATION</u>	<u>DESCRIPTION</u>	<u>BASIS FOR DETERMINATION</u>
D	Turbines #1 and #2	06-096 CMR 117§1(B)(1)(a)]	CEMS for SO ₂ emissions	Natural gas is the only fuel.
E	Generator #1	40 CFR Part 60, Subpart JJJJ	NSPS for Stationary Spark Ignition Internal Combustion Engines	Emergency engine manufactured prior to January 1, 2009.
F	Generator #1	40 CFR Part 63, Subpart ZZZZ	NESHAP for Stationary Reciprocating Internal Combustion Engines	New stationary RICE (construction commenced after June 1, 2006) located at area source of HAP.
G	Boiler #1	40 CFR Part 60, Subpart Dc	NSPS for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989	Boiler capacity of 3.5 MMBtu/hr
H	Facility	06-096 CMR 134	<i>Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds</i>	All VOC emitting equipment has received BACT.
I	Facility	40 CFR § 64.2	GHG compliance assurance monitoring (CAM) requirements	There is no emission limitation or standard for GHG or CO _{2e} .

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;
 - B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
 - C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
 - D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license. [06-096 CMR 140]

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C);
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140; [06-096 CMR 140]
- (3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; [06-096 CMR 140] **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A;
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; [06-096 CMR 140] **Enforceable by State-only**
- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written

request or in accordance with other provisions of this license;
[06-096 CMR 140]

- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license; [06-096 CMR 140]
- (8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- A. perform stack testing under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
 - 2. to demonstrate compliance with the applicable emission standards; or
 - 3. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion; [06-096 CMR 140] **Enforceable by State-only**
- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to

the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions. [06-096 CMR 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

- A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
- B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- C. All other deviations shall be reported to the Department in the facility's semiannual report. [06-096 CMR 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall

prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]

- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- (a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - (b) The compliance status;
 - (c) Whether compliance was continuous or intermittent;
 - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (e) Such other facts as the Department may require in determining the compliance status of the source. [06-096 CMR 140]

SPECIAL CONDITIONS

- (14) **Turbines #1 and #2** (139.7 MMBtu/hr each)

A. Turbines #1 and #2 shall each not exceed the following emissions at ambient temperatures greater than 0°F except during periods of startup and shutdown:

Pollutant	ppmvd @ 15% O₂	lb/MMBtu	lb/hr	Citation
PM	--	0.01	0.92	06-096 CMR 115, BPT
PM ₁₀	--	0.01	0.92	06-096 CMR 115, BPT
SO ₂	--	--	0.48	06-096 CMR 115, BPT
NO _x	15	--	7.55	06-096 CMR 115, BPT
CO	--	--	7.66	06-096 CMR 115, BPT
VOC	--	--	0.96	06-096 CMR 115, BPT

B. Turbines #1 and #2 shall each not exceed the following emissions at ambient temperatures less than or equal to 0°F except during periods of startup and shutdown:

<u>Pollutant</u>	<u>ppmvd @ 15% O₂</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>	<u>Citation</u>
PM	--	0.01	0.95	06-096 CMR 115, BPT
PM ₁₀	--	0.01	0.95	06-096 CMR 115, BPT
SO ₂	--	--	0.49	06-096 CMR 115, BPT
NO _x	150	--	62.21	40 CFR 60, Subpart KKKK and 06-096 CMR 115, BPT
CO	--	--	47.34	06-096 CMR 115, BPT
VOC	--	--	2.96	06-096 CMR 115, BPT

C. M&N shall keep records of the number of days during the calendar year that the ambient temperature is below zero degrees Fahrenheit. For any gaps in the temperature data, M&N may utilize meteorological data from an appropriate representative location. [06-096 CMR 115, BPT]

D. Visible emissions from Turbines #1 and #2 shall each not exceed 10% opacity on a six (6) minute block average basis, except for one (1) six (6) minute average in a three (3) hour period. [06-096 CMR 115, BPT]

E. Turbines #1 and #2 shall fire only pipeline quality natural gas. [06-096 CMR 115, BPT]

F. M&N shall maintain test ports in stack #1 and stack #2 in accordance with the criteria of 40 CFR Part 60, Appendix A, Method 1, and test platforms, if necessary, to allow emission compliance testing for each gas turbine. [40 CFR 60, Subpart KKKK and 06-096 CMR 115, BPT]

G. Compliance with the PM and PM₁₀ lb/hr emission limits shall be determined through stack testing in accordance with 40 CFR Part 60, Appendix A, Method 5 upon request by the Department. Test results shall be reported in the applicable units of the standard. [06-096 CMR 115, BPT]

H. Compliance with the NO_x licensed emission limits shall be determined through stack testing in accordance with 40 CFR Part 60 Appendix A, Method 7E, upon request by the Department. Test results shall be reported in the applicable units of the standard. [40 CFR 60, Subpart KKKK and 06-096 CMR 115, BPT]

- I. Compliance with the CO licensed emission limits shall be determined through stack testing in accordance with 40 CFR Part 60 Appendix A, Method 10, upon request by the Department. Test results shall be reported in the applicable units of the standard. [06-096 CMR 115, BPT]
 - J. Compliance with the SO₂ lb/hr emission limit shall be demonstrated by the maximum natural gas firing rate into the turbine and the available sulfur content data that is maintained in accordance with NSPS Subpart KKKK and described in Condition (15) below. [40 CFR 60, Part KKKK and 06-096 CMR 115, BPT]
 - K. M&N shall demonstrate compliance with the VOC lb/hr limit upon request by the Department by either running a Method 25A test for Total Organic Compounds (TOC) or by running a Method 25A test and Method 18 tests for methane and ethane and subtracting the Method 18 tests from the Method 25A test. Test results shall be reported in the applicable units of the standard. [06-096 CMR 115, BPT]
 - L. M&N shall keep documentation of all maintenance and repairs to Turbines #1 and #2. The documentation shall include all planned shutdowns, maintenance procedures and major parts replacements. This shall be available to the Department upon request. [06-096 CMR 115, BPT]
 - M. Except during periods of start-up and shut-down, M&N shall not operate Turbines #1 or #2 at gas producer speeds less than 92%. Compliance shall be accomplished through the hard programming of the turbine operational controls, and demonstrated by records kept of gas producer speeds at all operating times. [06-096 CMR 115, BPT]
- (15) Turbines #1 and #2 are subject to and shall comply with the requirements of the Federal NSPS 40 CFR Part 60, Subpart A (General Provisions), and Subpart KKKK (Stationary Gas Turbines).
- A. In accordance with NSPS Subpart KKKK, M&N shall maintain a current FERC Gas Tariff establishing gas quality, which documents the total sulfur content is 20 grains or less of sulfur per 100 scf of gas, or otherwise comply with the specified methods for demonstrating compliance with the fuel sulfur content requirements of 40 C.F.R. § 60.4365.
 - B. M&N shall operate and maintain Turbine #1 and Turbine #2, 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. [40 CFR Part 60, Subpart KKKK]

- C. M&N shall perform annual performance tests on Turbines #1 and #2 to demonstrate compliance with the NO_x emission limits. If the NO_x emission results meet the requirements of 40 C.F.R. § 60.4340, then the frequency of performance tests may be reduced to once every two years upon concurrence from the MEDEP. [40 CFR 60, Subpart KKKK and 06-096 CMR 115, BPT]

(16) **Monitoring and Recording Requirements**

- A. M&N shall monitor and record the following as specified, for Turbine #1 and #2 [06-096 CMR 115, BPT]:

<u>Parameter</u>	<u>Monitor</u>	<u>Record Data</u>	<u>Compile Data</u>
Natural Gas Flow Rate (acf input)	Continuously	Continuously	Monthly

- B. If any parameter monitor is recording accurate and reliable data less than 98% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the continuous emission monitoring system was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions. [06-096 CMR 115]
Enforceable by State-only

- (17) M&N shall notify the Department in advance of any scheduled venting event that is expected to result in the release of more than 85,000 scf of natural gas. M&N shall notify the Department within two working days of any unscheduled venting event that results in the release of more than 85,000 scf of natural gas. [06-096 CMR 115, BPT]

(18) **Record Keeping Requirements** [06-096 CMR 115, BPT]

M&N shall maintain records of the most current six year period of all monitored fuel flow rates required as a condition of this license. These records shall be made available to the Department upon request and shall consist of the following:

- A. Documentation which shows fuel flow rates during all source operating time, including calibration and audits; and
- B. A complete data set of all fuel flow rates, as specified in this license.

(19) M&N shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next working day, whichever is later, of such occasions and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(20) **Generator #1** (5.02 MMBtu/hr)

A. Generator #1 shall fire only pipeline quality natural gas. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Generator #1	PM	0.12	06-096 CMR 103, BPT

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator #1	0.05	0.05	2.58	2.26	0.97

[06-096 CMR 115, BPT]

C. Visible emissions from Generator #1 shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 115, BPT]

D. M&N shall limit Generator #1 to 500 hr/yr of operation based on a 12-month rolling total. [06-096 CMR 115, BPT]

E. M&N shall operate and maintain a non-resettable, elapsed time meter on Generator #1. The value from the meter shall be recorded on a monthly basis, and operating hours shall be tracked on a monthly and a 12-month rolling total basis. [06-096 CMR 115, BPT]

(21) **Boiler #1** (3.5 MMBtu/hr)

A. Boiler #1 shall fire only pipeline quality natural gas. [06-096 CMR 115, BPT]

B. The sulfur content of the fuel fired shall not exceed 20 grains of sulfur per 100 scf of gas, as documented by a current FERC Gas Tariff sheet establishing gas quality. [06-096 CMR 115, BPT] **Enforceable by State-only**

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.05	06-096 CMR 115, BPT

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.03	0.03	0.29	0.15	0.02

[06-096 CMR 115, BPT] **Enforceable by State-only**

D. Visible emissions from Boiler #1 shall not exceed 10% opacity on a six (6) minute block average basis, for more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(22) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour. [06-096 CMR 101]

(23) **VOC Cap Compliance Assurance**

M&N shall be limited to 49.0 tons/yr, on a 12-month rolling total basis. M&N shall maintain the following records to demonstrate compliance with its annual VOC cap [06-096 CMR 115, BPT]:

- A. M&N shall track the actual operating hours and fuel use for the two turbines and calculate on a monthly basis actual VOC emissions from the burning of natural gas in the turbines.
- B. M&N shall maintain a log that contains the following information for all turbine case ventings, ESD events, maintenance blowdowns, gas purges, and liquid purges:
 - 1. Date of the event;
 - 2. Estimated or actual event start time;
 - 3. Estimated or actual event duration;
 - 4. Release point ID;
 - 5. Gas release source ID;
 - 6. Gas release type (e.g. turbine case venting, ESD, blowdown, purge);
 - 7. Event type (e.g. shutdown, maintenance, testing, or malfunction);
 - 8. Description of event;
 - 9. Estimate of the volume of natural gas vented;

10. Estimate of the VOC density of the released gas; and
11. Calculation of the tons of VOC emitted based on the VOC content of the gas released.

- C. M&N shall check for the presence of pipeline liquids on a monthly basis and calculate actual fugitive emissions associated with this source monthly.
- D. M&N shall maintain an inventory of actual piping components by type for each service category. This inventory shall be used in calculating actual emissions from these components.
- E. The PNGTS Inlet Meter Station shall be included as part of M&N's facility and emissions from the Meter Station included in determining compliance with the facility's annual VOC emission limit.
- F. M&N may implement a Leak Detection and Repair ("LDAR") Program to assist in demonstrating compliance with the facility's VOC emission limit. The LDAR Program will be designed to identify equipment components that emit sufficient amounts of VOC to warrant reduction of emissions through detection and repair of leaks. If use of an LDAR program is necessary to demonstrate compliance with the proposed annual VOC emission limits contained in this license, M&N will submit to the Department a proposed LDAR program consistent with EPA protocol and guidance.

(24) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either (a) a computer program and accompanying instructions supplied by the Department; or (b) a written emission statement containing the information required in 06-096 CMR 137. The emission statement must be submitted by the date as specified in 06-096 CMR 137. [06-096 CMR 137]

(25) **Reporting of Emission Standard Violation**

M&N shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRS §605).

(26) **Semiannual Reporting** [06-096 CMR 140]

- A. The licensee shall submit semiannual reports to the Bureau of Air Quality due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.

- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the monitoring required by Special Condition (16) of this license.
- D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(27) Annual Compliance Certification

M&N shall submit an annual compliance certification, signed by the facility's designated responsible official, to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31st of each year with the initial annual certification due Jan 31, 2013.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data or requires testing only upon request of the Department, and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the equipment design or applicable emission factors. [06-096 CMR 140]

(28) General Applicable State Regulations

The licensee is subject to the State regulations listed below.

<u>Origin and Authority</u>	<u>Requirement Summary</u>	<u>Enforceability</u>
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State Only

(29) Units Containing Ozone Depleting Substances

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air

conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 CFR, Part 82, Subpart F]

(30) **Asbestos Abatement**

When undertaking Asbestos abatement activities, M&N shall comply with the Standard for Asbestos Demolition and Renovation 40 CFR Part 61, Subpart M.

(31) **Expiration of a Part 70 license**

M&N shall submit a complete Part 70 renewal application at least 6 months but no more than 18-months prior to the expiration of this air license.

Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under Chapter 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(32) **New Source Review**

Maritimes & Northeast Pipeline, LLC is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license. These NSR requirements remain in effect even if this 06-096 CMR 140 Air Emissions License, A-957-70-A-I, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 18th DAY OF July, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie L. [Signature]
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 1, 2012

Date of application acceptance: February 9, 2012

Date filed with the Board of Environmental Protection:

This Order prepared by Jane Gilbert, Bureau of Air Quality.

