STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Maritimes & Northeast Pipeline, LLC
York County
Eliot, Maine
A-855-71-D-R/A (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emissions license amendment 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

1. Maritimes & Northeast Pipeline, LLC (M&N) has applied to renew their Air Emission License permitting the operation of emission sources associated with their natural gas compressor station.

2. The equipment addressed in this license is located on Rt 236 in Eliot, Maine.

3. M&N has requested an amendment to their license to provide revised and updated emissions information for this facility. M&N has refined earlier estimates for potential emissions associated with both combustion and non-combustion sources, as well as natural gas releases that may occur. The following changes are addressed in this amendment:

   a. Updating VOC emissions estimates to reflect the actual VOC content of the gas;
   b. Recalculation of potential gas release and fugitive VOC emissions based on updated construction drawings;
   c. Small revision in the maximum capacity of the boiler;
   d. Recalculation of compressor turbine emissions to reflect new startup/shutdown (SU/SD) emissions data from the vendor, adjustment of the number of SU/SD events anticipated per year, and a revised approach for selection of representative ambient temperature data for M&N facilities statewide;
   e. Recalculation of emissions from Generator #1 based on the actual size of the generator installed, the actual compression ratio for the generator, and adjustment of generator short term emission rates to reflect a 110 percent capacity factor;
   f. Removal of Heater #1 from the license;
   g. Inclusion of fugitive emissions in the licensed facility emissions: and

h. Extension of the deadline to perform the initial compliance test on Turbine #1.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type	Combustion or Post Combustion Control Equipment	Stack #
Turbine #1	98.6	96,678	Natural Gas	SoLoNOx II	1
Generator #1	5.0	4,920	Natural Gas	none	2
Boiler #1	3.9	3,850	Natural Gas	none	3

Notes: Generator #1 was previously listed on an earlier license as 9.6 MMBtu/hr. The actual emergency generator installed has a nominal rating of 395 kW equating to a heat input of 4.55 MMBtu/hr. The maximum capacity of 5.0 MMBtu/hr is reflective of the fact that Generator #1 may operate for short periods of time at 110% capacity.

Heater #1 was previously listed on an earlier license as 2.7 MMBtu/hr. The actual heater installed has a rated capacity of less than 1.0 MMBtu/hr and is therefore considered an insignificant activity.

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Sig. Level
PM	2.9	2.7	-0.2	100
PM_{10}	2.9	2.7	-0.2	100
SO_2	1.3	1.3	-0-	100
NO_x	24.0	22.4	-1.6	100
CO	27.1	28.1	+1.0	100
VOC	11.9	24.9	+13.0	50

Therefore, this license is determined to be a renewal with minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the annual emission limits imposed in this license, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Turbine #1

Turbine #1 is a Solar Taurus Model 70-10302S3 (Taurus 70) combustion turbine which provides power to run a compressor that is used to recompress and move natural gas through the transmission pipeline. Turbine #1 has an approximate maximum heat input of 98.6 MMBtu/hr firing natural gas only.

Turbine #1 is subject to New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Gas Turbines for which construction commenced after February 18, 2005. Turbines subject to Subpart KKKK are exempt from NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines for which construction commenced after October 3, 1977.

M&N has proposed that replacement of turbine core components is a like-kind exchange and that additional licensing action for such a change should not be required. Such a replacement involves the replacement of modular turbine core components and not the entire "stationary combustion turbine" which makes up the affected facility as defined by NSPS. In order to constitute a modification or reconstruction the change would have to either result in an increase in emissions or exceed 50% of the fixed capital cost of a new facility. The replacement of the turbine core components does not meet either of these criteria.

Since the affected facility will not have been considered to be modified or reconstructed, M&N is not required to submit notification to EPA of turbine component replacement nor are they required to perform initial compliance testing after component replacement due to the NSPS. However, M&N shall notify the Department when a replacement occurs and the Department is not precluded from requiring compliance performance testing at any time.

The following is a summary of BPT for Turbine #1:

NOx	SoLoNOx II Combustion Technology
CO	SoLoNOx II Combustion Technology
VOC	SoLoNOx II Combustion Technology
SO_2	Firing of Pipeline Quality Natural Gas
PM/PM_{10}	Good Combustion Practices
HAP	Good Combustion Practices

The short-term emission limits for Turbine #1 are based on operation at 100% load and 0°F. Long-term (annual) emissions assume operation for 8,760 hours per year and include consideration of emissions associated with turbine startup/shutdown and operation at low temperatures.

Startup/Shutdown

M&N has requested revisions to the potential to emit (PTE) based on revised estimates for emissions during SU/SD from the manufacturer, and updated information concerning the number and duration of SU/SD.

This amendment incorporates revised emission rates that were issued by Solar Turbines, the compressor turbine/compressor unit vendor. In addition, M&N operations personnel have re-evaluated the likely number of SU/SD events that occur annually and have determined that 65 SU/SD events per year per compressor unit is a more representative number (as opposed to the previously licensed 104 events per year).

Fuel Monitoring

In accordance with 40 C.F.R. § 60.4365(a), M&N proposes to 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 20 grains of sulfur or less per 100 standard cubic feet.

Low Compressor Speeds

Through discussions with the turbine manufacturer, Solar, M&N has learned that operation of SoLoNOx II on these units is adversely affected at gas producer speeds below 90%. During normal operating conditions above these minimum gas producer speeds, the majority of the fuel (90-100%) is lean-premixed fuel and the balance is pilot fuel. When the gas producer speed drops below 90%, the balance between premixed and pilot fuel changes with the percentage of pilot fuel increasing. This has the effect of increasing NO_x and CO concentrations.

To correct this problem, M&N has installed a programming interlock to ensure that after the units are brought on line they do not operate below a gas producer speed of 90% except as part of the start-up or shut-down process.

Operation at Low Temperatures

Under normal operating conditions the majority of the fuel is lean-premixed fuel and the balance is pilot fuel. However, M&N has learned from the manufacturer that the turbine control systems are programmed to increase pilot fuel when the ambient temperature drops below zero to maintain combustion stability. As a result, emissions increase at these temperatures. M&N has proposed including provisions in the license for increased emissions during periods when the ambient temperature falls below zero degrees Fahrenheit. These provisions are consistent with the NSPS Subpart KKKK limits for cold temperature operation.

Turbine Case Venting and Station Piping Venting

When a turbine sits idle for some time, it is decompressed and vented to atmosphere to prevent damage to equipment. The turbine is also decompressed and vented when maintenance work is done on the turbine. M&N shall keep records as specified for the turbine venting.

M&N performs emergency shutdown (ESD) testing and routine maintenance of station piping which results in venting natural gas to the atmosphere and may also experience actual ESDs. 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.

C. Generator #1

License A-855-71-C-A includes a natural gas-fired emergency generator with a rated heat input capacity of 9.10 MMBtu/hr (9.6 MMBtu/hr at 105% of rated capacity). Emission estimates were based on specifications for a Caterpillar G3516 TA LE-130 reciprocating engine.

M&N has requested a modification to their license to reflect the unit actually installed, a Waukesha VGF24GL 4-stroke, natural gas-fired, lean-burn, low emitting reciprocating engine. This engine (Generator #1) has a nominal rating of 395 kW, a rated heat input capacity of 4.55 MMBtu/hr, and a fuel firing rate of 4,457 scf/hr. M&N has requested short-term emissions from Generator #1 be based on a capacity factor of 110% which equates to 5.0 MMBtu/hr. Peak values corresponding to 110% of rated capacity have been assumed in the calculation of the short-term emission limits. Maximum annual emissions have been based on operation of 500 hours per year at rated capacity.

Generator #1 is an emergency generator manufactured prior to January 1, 2009. Therefore, Generator #1 is not subject to New Source Performance Standards 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* per 40 CFR 40.4230(a)(4)(iv).

A summary of the BACT analysis for Generators #1 is the following:

1. Generator #1 shall fire only natural gas.
2. Generator #1 shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. All emissions are based on use of 110% capacity factor (5.0 MMBtu/hr) for calculating potential short-term emissions.
4. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates particulate matter emissions from combustion sources. Therefore, a PM limit of 0.12 lb/MMBtu shall be used. The PM_{10} limits are derived from the PM limits.
5. SO_2 emission limits are based on AP-42 data dated 7/00.
6. NO_x, CO, and VOC emission limits are based upon vendor supplied data.
7. 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.

D. Boiler #1

Boiler #1 has a maximum heat input of 3.9 MMBtu/hr. This equipment is therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boiler #1 is the following:

1. Boiler #1 shall fire only natural gas.
2. NO_x and CO emission limits are based on vendor supplied data.
3. PM, PM_{10}, SO_2, VOC emission limits are based upon AP-42 data dated 7/98.
4. Visible emissions from Boiler #1 shall not exceed 10% opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

E. Current Gas Analysis

In their original license application, M&N used the VOC content from a typical natural gas analysis to calculate emissions. M&N proposes to update those calculations to reflect the VOC content from the most recent analysis of the gas stream actually flowing through its pipeline. Potential VOC emissions based on the recent gas analysis increased from those in the original application.

F. Updated Construction Drawings

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.

G. Testing Deadline

Turbine #1 is subject to New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Gas Turbines for which construction commenced after February 18, 2005. Turbines subject to Subpart KKKK are exempt from NSPS Subpart GG, Standards of Performance for Stationary Gas Turbines for which construction commenced after October 3, 1977.

M&N's "Phase IV Project" was constructed to transport gas supplies from a new Canaport liquefied natural gas (LNG) receiving terminal near Saint John, New Brunswick, Canada. As a result, M&N expanded its existing interstate natural gas pipeline system in the U.S. by installing new facilities in Maine and Massachusetts.

Condition (39) of air emission license A-855-71-C-A requires M&N to perform an initial performance test within 60 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial startup. Initial startup of the turbine located at the Eliot compressor station occurred in October 2008. One extension to the deadline to perform the initial compliance testing was granted (in A-855-71-F-M) because the turbine was not yet in commercial operation, had not achieved its maximum rate, and M&N lacked sufficient gas throughput necessary to perform the test.

Canaport LNG is now operating but at a reduced capacity from its design capacity and the capacity the M&N system is designed to transport. As a result, M&N still cannot insure that it will have the gas throughput necessary to run Turbine #1 at sufficient capacity to complete the initial performance testing as required in 40 CFR § 60.8 and their air emission license.

M&N requested an extension from EPA to conduct the performance testing associated with its Eliot Compressor Station. Since the initial compliance testing schedule is also listed in the air emission license, M&N has also requested a minor revision to the license to address those conditions. On October 27, 2009, EPA granted an extension to conduct the performance testing to within 180 days of the prior performance testing deadline of October 5, 2009 (i.e., up to and including April 3, 2010), or within 60 days of achieving the compressor units' maximum production rate.

H. Degreaser Unit

Currently, there is no in-service parts washer at the Eliot compressor station. However, M&N wishes to retain the option to operate a degreaser in accordance with 06-096 CMR 130.

I. Annual Emissions

M&N shall be restricted to the following annual emissions, based on a 12 month rolling total:

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

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Turbine #1	2.5	2.5	1.3	20.7	27.0	2.7
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 & Fugitives	--	--	--	--	--	21.9
Total TPY	**2.7**	**2.7**	**1.3**	**22.4**	**28.1**	**24.9**

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

Based on the total facility licensed 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 the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-855-71-D-R/A subject to the following conditions.

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 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 (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 115. [06-096 CMR 115]

(3) 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 115]

(4) 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 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. 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 a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) 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 115]

(11) 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 to demonstrate compliance with the applicable emission standards 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; or
   2. 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 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate 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 115]

(13) Notwithstanding any other provisions 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 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and 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 state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from 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 a 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 115]

SPECIFIC CONDITIONS

(16) **Turbine #1**

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

Pollutant	ppmvd @ 15% O_2	lb/hr	lb/MMBtu	Citation
PM	--	0.65	0.01	06-096 CMR 115, BPT
PM_{10}	--	0.65	0.01	06-096 CMR 115, BPT
SO_2	--	0.34	--	06-096 CMR 115, BPT
NOx	15	5.34	--	06-096 CMR 115, BPT
CO	--	5.42	--	06-096 CMR 115, BPT
VOC	--	0.68	--	06-096 CMR 115, BPT

B. Except during periods of start-up and shut-down, Turbine #1 shall not exceed the following emissions at ambient temperatures less than or equal to 0°F:

Pollutant	ppmvd @ 15% O_2	lb/hr	lb/MMBtu	Citation
PM	--	0.68	0.01	06-096 CMR 115, BPT
PM_{10}	--	0.68	0.01	06-096 CMR 115, BPT
SO_2	--	0.35	--	06-096 CMR 115, BPT
NOx	150	44.97	--	40 CFR 60, Subpart KKKK and Chapter 115, BPT
CO	--	34.22	--	06-096 CMR 115, BPT
VOC	--	2.14	--	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 M&N's temperature data, it may utilize meteorological data from an appropriate representative location. [06-096 CMR 115, BPT]

D. Visible emissions from Turbine #1 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. [06-096 CMR 115, BPT]

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

F. Compliance with the PM and PM_{10} 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. [06-096 CMR 115, BPT]

G. Compliance with the NOx licensed emission limits shall be determined through stack testing in accordance with 40 CFR Part 60 Appendix A, Method 7E during the initial performance test and upon request by the Department.
[40 CFR 60 Part KKKK and 06-096 CMR 115, BPT]

H. Compliance with the CO licensed emission limits shall be determined through stack testing in accordance with 40 CFR Part 60 Appendix A, Method 10 during the initial performance test and upon request by the Department.
[06-096 CMR 115, BPT]

I. Compliance with the SO_2 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 (18) below.
[40 CFR 60 Part KKKK and 06-096 CMR 115, BPT]

J. 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. [06-096 CMR 115, BPT]

K. M&N shall keep documentation of all maintenance and repairs to Turbine #1. 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]

L. Except during periods of start-up and shut-down, M&N shall not operate Turbine #1 at gas producer speeds less than 90%. Compliance shall be demonstrated by record keeping of gas producer speeds at all operating times. [06-096 CMR 115, BPT]

(17) Turbine #1 is 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).

(18) In accordance with NSPS Subpart KKKK, M&N shall maintain a current tariff sheet which demonstrates the total sulfur content is 20 grains of sulfur or less 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.

(19) M&N may install like-kind, manufacturer-supplied replacement components for the turbines that takes place either as part of scheduled maintenance of a turbine or in the event of malfunction or outage and subsequent repair of an engine. M&N shall notify the Department in writing in advance of any replacement of turbines components and shall still be subject to and responsible for any applicable NSPS provisions with respect to replacement of the turbine or any components. [06-096 CMR 115, BPT]

(20) M&N shall monitor and record the following as specified, for the facility [06-096 CMR 115, BPT]:

Parameter	Monitor	Record Monitor Data	Compile Fuel Usage
Natural Gas Flow Rate (actual cubic feet input)	Continuously	Continuously	Monthly

(21) 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, BPT]

(22) M&N shall maintain a log of all turbine case venting and ESD events that includes the following information:

A. date of the event
B. estimated or actual event start time
C. estimated or actual event duration
D. event source
E. event type (shutdown, maintenance, testing, or malfunction)
F. description of event
G estimate of the volume of natural gas vented
H. estimate of the VOC density of the released gas
I. calculation of the tons of VOC emitted based on the VOC content of the gas released

[06-096 CMR 115, BPT]

(23) 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 following any unscheduled venting event that results in the release of more than 85,000 scf of natural gas. [06-096 CMR 115, BPT]

(24) **Performance Tests**

A. M&N shall conduct an initial performance test within 60 days of achieving the compressor unit's maximum production rate or April 3, 2010, whichever occurs first. All testing shall comply with all of the requirements of the DEP Compliance Test Protocol and with 40 CFR Part 60, as appropriate, or other methods approved by the Bureau of Air Quality. A representative of the DEP or EPA shall be given the opportunity to observe the compliance testing.
[40 CFR 60 Subpart KKKK and 06-096 CMR 115, BPT]

B. M&N shall install test ports in stack #1 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 the gas turbine.
[40 CFR 60 Subpart KKKK and 06-096 CMR 115, BPT]

C. M&N shall conduct initial performance testing on the gas turbine for CO and VOCs and, upon request by the Department, total PM. Test results shall be reported in the applicable units of the standard. [06-096 CMR 115, BPT]

D. M&N shall perform annual performance tests 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]

(25) **Record Keeping Requirements**

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 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. All records shall be made available to the Department upon request.

[06-096 CMR 115, BPT]

(26) 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, monitoring devices, 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]

(27) **Boiler #1**

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

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.08	06-096 CMR 115, BPT

C. Emissions shall not exceed the following [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

D. Visible emissions from Boiler #1 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. [06-096 CMR 101]

(28) **Generator #1**

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

B. Generator #1 shall be equipped with an elapsed time meter. The value from the meter will be entered into a spreadsheet on a monthly basis. The spreadsheet will track operating hours on a monthly and a 12 month rolling total basis. [06-096 CMR 115, BACT]

C. Generator #1 shall fire only natural gas. [06-096 CMR 115, BPT BACT

D. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	PM	0.12	06-096 CMR 103

E. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.05	0.05	2.58	2.26	0.97

F. 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, BACT]

(29) **Parts Washer**

Any parts washers that are placed into service at M&N are subject to 06-096 CMR 130.

A. M&N shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of Chapter 130 [06-096 CMR 130]:
   1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under 06-096 CMR 130.
   1. M&N shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      (i) Waste solvent shall be collected and stored in closed containers.
      (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
      (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
      (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
      (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
      (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
      (viii) Work area fans shall not blow across the opening of the degreaser unit.
      (ix) The solvent level shall not exceed the fill line.
   2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR130,]

(30) **Annual Emissions**

A. Total emissions from the licensed sources shall not exceed the following on a 12 month rolling total basis [06-096 CMR 115, BPT]:

	Ton/year
PM	2.7
PM_{10}	2.7
SO_2	1.3
NO_x	22.4
CO	28.1
VOC	24.9

B. M&N shall keep monthly records sufficient to document the facilities emissions on a 12 month rolling total basis and shall make those records available to the Department upon request. [06-096 CMR 115, BPT]

(31) 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 MRSA §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 3rd DAY OF February, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, 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: 4/22/08
Date of application acceptance: 4/25/08

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.

FILED
FEB - 4 2010
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE