



DEPARTMENT ORDER

**Maritimes & Northeast Pipeline, L.L.C.
Penobscot County
Brewer, Maine
A-854-71-I-R/M**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal and Amendment**

FINDINGS OF FACT

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

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

The equipment addressed in this license is located at Lambert Road, Brewer, Maine.

M&N has requested modifications to the language describing how SoLoNO_xTM functions and some minor changes to the emissions limits. SO₂ emission rates have been updated to reflect AP-42's emission factor using the associated sulfur content provided by the gas tariff sheet.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Turbine #1	174.9	171,492	Natural Gas*	2008	2008	1
Boiler #1	3.9	3,850	Natural Gas*	2008	2008	3
Generator #1	9.26	9,076	Natural Gas*	2007	2008	2

* Pipeline quality natural gas (1,020 Btu/scf)

M&N also has 16 small, natural gas-fired heaters not listed in the table above. These are considered insignificant emissions units because they are each rated below 1.0 MMBtu/hr,

the heat input capacity at or above which would require their inclusion in the license; therefore, these small heaters are not addressed further in this license.

M&N may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

<http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf>

Additionally, M&N may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

M&N does not currently operate a parts washer but would like to maintain the ability to add one in the future.

C. Definitions

Low-Load Operation means periods of operation during maintenance activities or the turbine that require operation at low load with SoLoNO_xTM Disabled, as recommended by the manufacturer.

Low Temperature Operation means operation at or below an ambient temperature of 0 °F.

Normal Operation means operation when NO_x control technology SoLoNO_xTM is Enabled and Active at temperatures above 0 °F. During normal operation, the majority of fuel fired in the turbines is lean-premixed fuel, and the balance is pilot fuel. When in normal operation, the turbine is considered to be achieving vendor guaranteed emissions rates.

Portable or Non-Road Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and

which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or Logs mean either hardcopy or electronic records.

Shutdown means the time from when SoLoNO_xTM becomes Inactive to the end of fuel combustion.

Startup means the time from the start of fuel combustion to the time that SoLoNO_xTM becomes Active.

Transient Event means a period of time when SoLoNO_xTM is Enabled but also Inactive.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

M&N has applied to renew currently licensed emission units as well as modify their license as addressed in Section I(A) above.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emissions” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emissions Levels
PM	6.1	6.1	0	100
PM ₁₀	6.1	6.1	0	100
PM _{2.5}	-	6.1	-	100
SO ₂	2.6	4.1	+1.5	100
NO _x	45.6	45.6	0	100
CO	60.1	60.1	0	100
VOC	29.9	29.9	0	100

This amendment does not include the addition of new equipment and will increase licensed emissions by less than 4 ton/year for each single pollutant not including greenhouse gases (GHG) and less than 8 ton/year for all pollutants combined not including GHG. This modification is determined to be a minor revision. Therefore, this license is considered to be both a renewal and a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

E. Facility Classification

With the annual facility-wide emission limits, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because M&N is subject to license restrictions that keep facility emissions below major source thresholds for NO_x, CO, and VOC; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

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 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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 Titan Model 130-20502S3 combustion turbine. Turbine #1 provides direct drive power to run a compressor that is used to recompress and transport natural gas through the transmission pipeline. Turbine #1 has an approximate maximum heat input of 174.9 MMBtu/hr firing pipeline quality natural gas. Turbine #1 was manufactured and installed in 2008.

Turbine #1 is equipped with SoLoNO_xTM, a NO_x emissions reduction technology that combines premixing and lean fuel-air mixtures with a two-stage combustion zone, thereby reducing the flame temperature and consequently thermal NO_x formation.

1. Turbine Replacement

M&N's license allows for the replacement of turbine core components with like-kind equipment without triggering additional New Source Performance Standards (NSPS) requirements. 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 be considered modified or reconstructed, M&N will not be required to submit notification to EPA of turbine component replacement nor will they be required by NSPS applicable requirements to perform initial compliance testing after component replacement. 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.

2. 40 CFR Part 60, Subpart KKKK

Stationary combustion turbines constructed, modified, or reconstructed after February 18, 2005, are subject to *Standards of Performance for Stationary Combustion Turbines*, Title 40 Code of Federal Regulations (40 C.F.R.) Part 60, Subpart KKKK (Subpart KKKK). Turbine #1 was manufactured in 2008 making it subject to Subpart KKKK.

Turbines which are subject to Subpart KKKK are exempt from the requirements of *Standards of Performance for Stationary Gas Turbines*, 40 C.F.R. Part 60, Subpart GG pursuant to § 60.4305(b).

a. Standards

(1) Nitrogen Oxides (NO_x)

Pursuant to Table 1 of Subpart KKKK, Turbine #1 is subject to a NO_x emission limit of 25 ppm at 15% O₂ during operation at or above 75% of peak load and at temperatures at or above 0 °F. However, the BPT limit for NO_x emissions is more stringent, and therefore, only the more stringent limit is contained in the Order of this license.

For operating loads less than 75% of peak load or temperatures below 0 °F, Table 1 of Subpart KKKK limits NO_x to 150 ppm at 15% O₂.

(2) Sulfur Dioxide (SO₂)

M&N has elected to comply with SO₂ emission standards of Subpart KKKK pursuant to 40 C.F.R. § 60.4330(a)(2) by ensuring the fuel sulfur content does not result in SO₂ emissions that exceed 0.060 lb/MMBtu. M&N fires only pipeline quality natural gas in Turbine #1. Since EPA's AP-42 Table 3.1-2a (4/2000) provides an emission factor of 3.4x10⁻³ lb/MMBtu for natural gas-fired turbines, this standard is met through the firing of only pipeline quality

natural gas. Compliance demonstration requirements are described in a subsequent part of this license.

b. Performance Testing

- (1) Pursuant to 40 C.F.R. § 60.4340(a), M&N must conduct annual performance tests for NO_x unless the results of the previous performance test is less than or equal to 75% of the emission limit contained in Subpart KKKK, in which case M&N must conduct performance testing for NO_x a least once every two years with no more than 26 calendar month between tests. Because Turbine #1 is subject to a BPT emission limit for NO_x that is less than 75% of the Subpart KKKK emission limit, it is anticipated that M&N will always be subject to performance testing on a two-year schedule.
- (2) Performance testing for NO_x shall be done at any load condition within plus or minus 25% of 100% of peak load. M&N shall conduct three separate test runs for each performance test. The minimum run time shall be 20 minutes. The ambient temperature shall be greater than 0 °F during the performance test. [40 C.F.R. § 60.4400(b)]
- (3) Performance tests for SO₂ shall be conducted on an annual basis with no more than 14 calendar months between tests. [40 C.F.R. §§ 60.8(a) & 60.4415(a)]

M&N may conduct performance tests for SO₂ by collecting a representative sample of natural gas in accordance with ASTM D5287 and analyzing the sample for total sulfur content of the fuel using ASTM D1072 or other procedures allowed by Subpart KKKK. The fuel analysis may be performed by M&N, a service contractor, or other qualified agency. [40 C.F.R. § 60.4415(a)(1)]

M&N intends to comply with the performance test requirement for SO₂ by producing a tariff sheet from the fuel vendor that contains documentation the method of sampling and analyzing the natural gas for total sulfur content of the fuel complies with the methods specified by 40 C.F.R. § 60.4415(a)(1).

c. Recordkeeping

M&N shall maintain a current FERC Gas Tariff sheet specifying gas quality, which documents the total sulfur content is 20 grains of sulfur or less per 100 scf of gas. [40 C.F.R. § 60.4365(a)]

3. Operation at Low Temperature

Under normal operating conditions the majority of the fuel is lean-premixed fuel and the balance is pilot fuel. However, the turbine control systems are programmed to

increase pilot fuel when the ambient temperature drops below 0 °F to maintain combustion stability. As a result, emissions increase at these temperatures. This license includes provisions for increased emissions during periods when the ambient temperature falls below 0 °F. These provisions are consistent with the NSPS Subpart KKKK limits for cold temperature operation.

4. Startup/Shutdown and Transient Events

As discussed in the BPT section below, emissions of NO_x, CO, and VOC are controlled using Solar's SoLoNO_xTM which is a technology based on dry, lean-premixed combustion.

SoLoNO_xTM can either be Enabled or Disabled, essentially either on or off. SoLoNO_xTM is typically Disabled during low load conditions, such as startup and shutdown, and during low-temperature operation (see Definitions section) and low load operation as recommended by the manufacturer. The control system for Turbine #1 is equipped with interlocks which prevents operating in SoLoNO_xTM Disabled mode except for periods of startup, shutdown, low-temperature, and low load operation as recommended by the manufacturer. Startup and shutdown events are estimated to take approximately nine minutes each with no more than two startups and two shutdowns in any given hour, for a total of 18 minutes of startup and 18 minutes of shutdown in an hour.

When Enabled, SoLoNO_xTM can be either Active or Inactive. A transient event occurs when SoLoNO_xTM is Enabled but Inactive. These are infrequent periods of short duration (typically a few minutes or less) when the turbine is not achieving the emissions guarantee provided by Solar. These periods occur as a result of the turbine losing combustion stability in the lean premix mode. To stabilize combustion, the turbine control system increases the pilot fuel to the combustion chamber resulting in higher emissions until stable lean premix mode can be achieved again. The cause of transient events is usually outside the control of M&N, e.g., a bump/drop in pipeline pressure due to a large facility coming on/off-line.

Limiting the frequency of startups, shutdowns, low load, and transient events would not allow the facility to respond to demands of the natural gas pipeline as necessary to provide reliable and stable fuel supply to the region and is therefore not considered practicable for the facility. Therefore, the frequency of M&N's startups and shutdowns is unrestricted given the inconsistency of natural gas demands and M&N's role in providing reliable fuel supply. Emissions during startup, shutdown, low load, and transient events will be tracked and included in determining compliance with M&N's annual emission limitations.

M&N will continuously monitor the SoLoNO_xTM system and whether it is Enabled/Disabled and Active/Inactive. M&N shall keep records of the date, time, and duration of all startups and shutdowns. In calculating compliance with the facility's

annual emission limits, M&N shall determine the amount of operating time the turbine spent in each mode and calculate emissions based on the following:

Mode	Calculate Emissions Using Emission Factors Based On ...
Startup	Emission data supplied by the turbine manufacturer at the time of the most recent permit application.
Shutdown	Emission data supplied by the turbine manufacturer at the time of the most recent permit application.
Normal Operation	Licensed emission limits for temperatures above 0 °F.
Low Temperature	Licensed emission limits for appropriate temperature range.
Low Load Operation	Licensed emission limits for temperatures less than or equal to -20 °F.
Transient Event	Licensed emission limits for temperatures less than or equal to -20 °F.

M&N shall keep records of the number of hours during the calendar year that the ambient temperature is at or below 0 °F and the number of hours during the calendar year that the ambient temperature is at or below -20 °F. Ambient temperature will be measured at the turbine inlet primarily, but meteorological data from an appropriate representative location may be used to fill any gaps in M&N's temperature data.

5. BPT Findings

The following control strategies represent BPT for Turbine #1:

PM/PM ₁₀ /PM _{2.5}	Good Combustion Practices
SO ₂	Firing of Pipeline Quality Natural Gas
NO _x	SoLoNO _x Combustion Technology
CO	SoLoNO _x Combustion Technology
VOC	SoLoNO _x Combustion Technology
HAP	Good Combustion Practices

The BPT emissions limits for the turbines were based on the following:

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

BPT for PM emissions from Turbine #1 consists of firing pipeline quality natural gas exclusively and good combustion practices. Units firing fuel 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. Thus, firing only pipeline quality natural gas and maintaining good combustion practices represents BPT.

Turbine #1 has a rated capacity greater than 3 MMBtu/hr; therefore, it is subject to *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103. Turbine #1 is subject to a PM emission limit of 0.08 lb/MMBtu pursuant to § 2(B)(1)(b) of this rule because it has a maximum heat input capacity between 50 and 250 MMBtu/hr and fires natural gas. Turbine #1 is subject to a lb/hr PM

emission limit that corresponds to a much lower lb/MMBtu level than 0.08 lb/MMBtu; therefore, the Department finds that Turbine #1 meets the ch. 103 PM emission limit by meeting the PM lb/hr emission limits in the table below.

b. Sulfur Dioxide

Sulfur Dioxide (SO₂) is formed from the oxidation of sulfur in fuel. The most stringent method of control for SO₂ that has been demonstrated for gas-fired turbines is firing pipeline quality natural gas.

c. Nitrogen Oxides

Nitrogen Oxides (NO_x) emitted from combustion turbines result from the oxidation of both fuel-bound nitrogen and atmospheric nitrogen (thermal NO_x). Natural gas has very low fuel-bound nitrogen; therefore, reducing NO_x emissions must focus on reducing the thermal NO_x component. M&N uses SoLoNO_xTM combustion technology, which employs lean-premixed combustion techniques. The premixing of fuel and air upstream of the primary combustion zone helps to ensure that the flame operates at a fuel-lean condition, thus lowering flame temperature and minimizing thermal NO_x formation.

The SoLoNO_xTM combustion technology includes 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 also allows the combustor to be operated at lower flame temperatures, which reduces NO_x formation.

The Department determined BPT for NO_x emissions consists of operating Turbine #1 with SoLoNO_xTM combustion technology. Subpart KKKK contains a NO_x emissions 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 76% of peak load. BPT for ambient temperatures above 0 °F shall be a NO_x emission limit of 15 ppmvd @ 15% O₂. The BPT for cold weather operations shall be the NSPS limit of 150 ppmvd at 15% O₂.

d. Carbon Monoxide

Carbon Monoxide (CO) results from incomplete combustion of gas in the turbine.

The gas turbine uses a dry low-NO_x combustor system, integrates sophisticated burner controls with staged premixed combustion zones, and uses fuel feed systems to achieve the required low-NO_x emissions. Additional CO reductions are attributed to the SoLoNO_xTM technology.

The Department determined M&N's use of SoLoNO_xTM combustion technology and associated good combustion practices and instrumentation and controls for CO along with ambient temperature specific limits contained in the table below, represents BPT.

e. Volatile Organic Compounds

The majority of volatile organic compounds (VOC) emitted from gas-fired turbines comes from unburned hydrocarbons. Control of VOC is accomplished by providing adequate fuel residence time and adequately high temperature in the combustion zone to ensure complete combustion. The Department determined BPT for VOC is using the SoLoNO_xTM combustion technology along with the ambient temperature specific limits contained in the table below.

6. Summary of Emission Limits

Except during periods of startup, shutdown, and low load, Turbine #1 shall not exceed the following emission limits.

Pollutant	Emission Limit T > 0 °F	Emission Limit 0 °F ≥ T > -20 °F	Emission Limit T ≤ -20 °F & Transient Events
PM	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
PM ₁₀	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
PM _{2.5}	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
SO ₂	0.98 lb/hr	1.01 lb/hr	1.01 lb/hr
NO _x	15 ppmdv @ 15% O ₂	150 ppmdv @ 15% O ₂	150 ppmdv @ 15% O ₂
NO _x	9.46 lb/hr	27.38 lb/hr	78.23 lb/hr
CO	9.60 lb/hr	39.69 lb/hr	59.53 lb/hr
VOC	1.20 lb/hr	2.49 lb/hr	3.73 lb/hr

[06-096 C.M.R. ch. 115, BPT]

7. Visible Emissions

Visible emissions from Turbine #1 shall not exceed 10% opacity on a six-minute block average basis.

8. Gas Releases: Turbine Case 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 of the date and time of each turbine case venting as well as the amount (scf) of gas vented.

C. Boiler # 1

M&N operates Boiler #1 for facilities heating and is rated at 3.9 MMBtu/hr and fires natural gas. The boiler was installed in 2008 and exhausts through its own stack, Stack #3.

1. BPT Findings

The BPT emission limits for Boiler #1 were based on the following:

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
- NO_x – 75 lb/MMscf based on manufacturer data
- CO – 38 lb/MMscf based on manufacturer data
- VOC – 5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
- Visible Emissions – 06-096 C.M.R. ch. 101

The BPT emission limits for Boiler #1 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #1	PM	0.05

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.20	0.20	0.20	-	0.29	0.15	0.02

2. Visible Emissions

Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis.

3. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to its size, Boiler #1 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

4. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJ

Boiler #1 is not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. Natural gas-fired units are exempt from the requirements of this regulation. [40 C.F.R. §§ 63.11195(e)]

D. Generator #1

M&N operates one emergency generator, Generator #1. Generator #1 is a Waukesha VGF48GL 4-stroke generator rated at 9.26 MMBtu/hr (830 kW) which fires natural gas and was manufactured in 2007 and installed in 2008.

1. BPT Findings

The BPT emission limits for Generator #1 are based on the following:

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
- SO₂ – 5.88 x 10⁻⁴ lb/MMBtu from AP-42 dated 10/24
- NO_x – 570.81 lb/MMscf from manufacturer's data
- CO – 499.46 lb/MMscf from manufacturer's data
- VOC – 214.05 lb/MMscf from manufacturer's data
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Generator #1 are the following:

Unit	Pollutant	lb/MMBtu
Generator #1	PM	0.05

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.46	0.46	0.46	0.01	5.18	4.53	1.94

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis.

The Department has determined that the BPT visible emission limit is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for Generator #1 has been streamlined to the more stringent BPT limit, and only this more stringent limit shall be included in the Order of this air emission license.

2. Chapter 169

Generator #1 was installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to section 1.

3. New Source Performance Standards (NSPS)

Due to the date of manufacture of the spark ignition emergency engine listed above, Generator #1 is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*,

40 C.F.R. Part 60, Subpart JJJJ since the unit was manufactured prior to January 1, 2009. [40 C.F.R. § 60.4230]

4. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ (Subpart ZZZZ) is applicable to Generator #1. The unit is considered a new, emergency stationary reciprocating internal combustion engine at an area HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements. [40 C.F.R. § 63.6585]

Per 40 C.F.R. Part 63.6590(c)(1), compliance for new stationary RICE is met by complying with 40 C.F.R. Part 60, Subpart JJJJ. Since Generator #1 is not subject to 40 C.F.R. Part 60, Subpart JJJJ, there are no applicable NESHAP requirements for this engine.

E. NSPS for Crude Oil and Natural Gas Facilities

M&N is not subject to any of the following NSPS regulations:

- *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015*, 40 C.F.R. Part 60, Subpart OOOO;
- *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After September 18, 2015 and On or Before December 6, 2022*, 40 C.F.R. Part 60, Subpart OOOOa; nor
- *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After December 6, 2022*, 40 C.F.R. Part 60, Subpart OOOOb.

The facility is a compressor station constructed prior to the applicability dates of all three rules and that has not undergone a modification or reconstruction as defined in NSPS regulations.

F. Parts Washer

Currently there is no parts washer in service at the Brewer compressor station. However, M&N wishes to retain the option to operate a degreaser in accordance with *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

G. Gas Releases and Fugitive Emissions

Operation of the facility's equipment and plant piping will result in fugitive emissions of natural gas. M&N shall calculate fugitive emissions on a calendar year basis using estimates for similar sized stations and a statistical analysis of available gas quality data.

These fugitive emissions (including VOC and methane) shall be reported to the Department annually as part of the facility's emissions inventory collected per *Emission Statements*, 06-096 C.M.R. ch. 137.

Emergency shutdowns (ESD), ESD testing, and routine maintenance of station piping result in venting natural gas to the atmosphere. These activities are necessary for safety reasons, and no emission limit is imposed intending to restrict these activities. However, emissions from these activities shall be included in the annual emissions inventory submitted pursuant to 06-096 C.M.R. ch. 137.

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.

M&N shall maintain a log of all gas releases and ESD events that includes the following information:

1. Date of the event;
2. Estimated or actual event start time;
3. Estimated or actual event duration;
4. Release source;
5. Event type (shutdown, maintenance, testing, or malfunction);
6. Description of event;
7. Estimate of the amount of natural gas vented;
8. Estimate of VOC density of the released gas; and
9. Calculation of the tons of VOC emitted based on the VOC content of the gas released.

H. Annual Emission Limits

Total emissions from all sources at the facility addressed in this air emission license shall not exceed the following on a 12-month rolling total basis:

Pollutant	Tons/year
PM	6.1
PM ₁₀	6.1
PM _{2.5}	6.1
SO ₂	4.1
NO _x	45.6

Pollutant	Tons/year
CO	60.1
VOC	29.9
Single HAP	9.9
Total HAP	9.9

Compliance shall be demonstrated by recordkeeping and calculations of actual emissions performed at least once annually. Additional calculations of emissions to demonstrate compliance with these limits on a 12-month rolling basis shall be performed at the request of the Department.

I. Fugitive Emissions of Particulate Matter

M&N shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

M&N shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

J. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

K. Performance Test Protocol

For any performance testing required by this license, M&N shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 115, BPT]

The Department's Performance Testing Guidance is available online at <https://www.maine.gov/dep/air/emissions/testing.html>.

L. Emission Statements

M&N is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. M&N shall maintain the following records in order to comply with this rule:

1. The amount of natural gas fired in each unit on a monthly basis;
2. Calculations of emissions of all regulated pollutants from each emissions unit on a calendar year total basis;
3. Calculations of the VOC and/or HAP emissions from gas releases and fugitive emissions on a calendar year total basis; and
4. Hours of operation for each emission unit on a monthly basis.

Every third year, or as requested by the Department, M&N shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. M&N shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

M. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following:

- Turbine #1 emission limits were calculated based on ambient temperature data indicating 275 hours per year of operation at ambient temperatures less than or equal to 0 °F, 2 hours per year of operation at ambient temperatures less than or equal to -20 °F, and 20 hours per year of low load operation;
- 8,760 hours per year of operation on Turbine #1 including 65 startup and shutdown events per year;
- Operating Generator #1 for 100 hrs/yr of non-emergency operation; and
- Operating Boiler #1 for 8,760 hr/yr.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
Turbine #1	5.1	5.1	5.1	4.0	44.0	59.3	5.6
Boiler #1	0.9	0.9	0.9	0.1 *	1.3	0.6	0.1
Generator #1	0.1 *	0.1 *	0.1 *	-	0.3	0.2	0.1
Gas Releases & Fugitives	-	-	-	-	-	-	24.1
Total TPY	6.1	6.1	6.1	4.1	45.6	60.1	29.9

* Because the estimated emission is small but not zero, this value is rounded to the nearest tenth of a ton.

Pollutant	Tons/year
Single HAP	9.9
Total HAP	9.9

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by-case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
PM _{2.5}	15
SO ₂	50
NO _x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

This determination is based on information provided by the applicant regarding licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require M&N to submit additional information and may require an ambient air quality impact analysis at that time.

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

The Department hereby grants Air Emission License A-854-71-I-R/M subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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.

- (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. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to beginning actual construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115] Payment of the annual air emission license fee for M&N is due by the end of May of each year. [38 M.R.S. § 353-A(3)]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. 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 C.F.R. 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 C.M.R. ch. 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 the written test report by the Department, or another alternative timeframe approved by the Department, 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 C.F.R. 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 C.M.R. ch. 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 license requirement. [06-096 C.M.R. ch. 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 emissions 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 C.M.R. ch. 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 C.M.R. ch. 115]

- (16) The licensee 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 (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Turbine #1**

- A. Turbine #1 shall only fire pipeline-quality natural gas. [06-096 C.M.R. ch. 115, BPT]
- B. Except during periods of startup, shutdown, and low load, Turbine #1 shall not exceed the following emissions limits:

Pollutant	Emission Limit T > 0 °F	Emission Limit 0 °F ≥ T > -20 °F	Emission Limit T ≤ -20 °F & Transient Events
PM	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
PM ₁₀	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
PM _{2.5}	1.15 lb/hr	1.19 lb/hr	1.19 lb/hr
SO ₂	0.98 lb/hr	1.01 lb/hr	1.01 lb/hr
NO _x	15 ppmdv @ 15% O ₂	150 ppmdv @ 15% O ₂	150 ppmdv @ 15% O ₂
NO _x	9.46 lb/hr	27.38 lb/hr	78.23 lb/hr
CO	9.60 lb/hr	39.69 lb/hr	59.53 lb/hr
VOC	1.20 lb/hr	2.49 lb/hr	3.73 lb/hr

[06-096 C.M.R. ch. 115, BPT]

- C. Visible emissions from Turbine #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]
- D. M&N shall keep records of the number of hours during the calendar year that the ambient temperature is at or below 0 °F and the number of hours during the calendar year that the ambient temperature is at or below -20 °F. Ambient temperature will be measured at the turbine inlet primarily, but meteorological data from an appropriate representative location may be used to fill any gaps in M&N's temperature data. [06-096 C.M.R. ch. 115, BPT]
- E. M&N shall not operate Turbine #1 in SoLoNO_xTM Disabled mode except for periods of startup, shutdown, low temperature, and low load operation as recommended by the manufacturer. Compliance shall be demonstrated by continuously monitoring the SoLoNO_xTM system and whether it is Enabled/Disabled. [06-096 C.M.R. ch. 115, BPT]
- F. M&N shall continuously monitor the SoLoNO_xTM system on Turbine #1 during all operating times, whether it is Enabled/Disabled and Active/Inactive. M&N shall keep records of the date, time, and duration of all startups, shutdowns, and low load

- operation. This information shall be used in demonstrating compliance with the facility's annual emission limits. [06-096 C.M.R. ch. 115, BPT]
- G. Turbine #1 is subject to and shall comply with all the applicable requirements of NSPS 40 C.F.R. Part 60, Subpart KKKK (Stationary Gas Turbine) and Subpart A (General Provisions).
- H. Compliance with the PM and PM₁₀ lb/hr emission limits associated with Turbine #1 shall be determined by stack testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 5 upon request of the Department. Test results shall be reported in the applicable units of the standard. [06-096 C.M.R. ch. 115, BPT]
- I. 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 the performance tests may be reduced to once every two years (no more than 26 months between tests). [40 C.F.R. Part 60, Subpart KKKK and 06-096 C.M.R. ch. 115, BPT]
- J. Compliance with the CO licensed emission limits shall be determined through stack testing in accordance with 40 C.F.R. 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 C.M.R. ch. 115, BPT]
- K. 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 Section N below. [40 C.F.R. Part 60, Subpart KKKK and 06-096 C.M.R. ch. 115, BPT]
- L. M&N shall demonstrate compliance with the VOC lb/hr limit upon request by the Department by either performing a Method 25A test for Total Organic Compounds (TOC) or by performing a Method 25A test and Method 18 tests for methane and ethane and subtracting the Method 18 results from the Method 25A results. Test results shall be reported in the applicable units of the standard. [06-096 C.M.R. ch. 115, BPT]
- M. M&N shall keep documentation of all maintenance and repairs (both planned and unplanned, including parts replacement) performed on Turbine #1 and any associated control equipment. The documentation shall include the date maintenance occurred and a description of maintenance performed including which parts were replaced, if applicable. These records shall be made available to the department upon request. [06-096 C.M.R. ch. 115, BPT]
- N. M&N shall maintain a current FERC gas tariff sheet specifying gas quality, which documents the total sulfur content is 20.0 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. § 60.334(h)(3).

O. M&N may install like-kind manufacturer-supplied replacement components for the turbines that occur either as part of scheduled maintenance of a turbine or in the event of a malfunction or outage and subsequent repair. M&N shall notify the Department in writing in advance of any replacement of turbine 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 C.M.R. ch. 115, BPT]

P. Parameter Monitors

1. M&N shall monitor and record the following parameters. [06-096 C.M.R. ch. 115, BPT]

Parameter	Monitor	Record Monitor Data	Total
Natural Gas Fuel Flow Rate to Turbine #1 (actual cubic feet input)	Continuously ^A	Continuously ^A	Monthly
SoLoNOx™ Enabled/Disabled Status on Turbine #1	Continuously ^B	Continuously ^B	Monthly (minutes)
SoLoNOx™ Active/Inactive Status on Turbine #1	Continuously ^B	Continuously ^B	Monthly (minutes)

^A For this parameter, *Continuously* means the total fuel flow will be recorded at least once per each 15-minute period during turbine operation.

^B For this parameter, *Continuously* means the total minutes for each status will be recorded at least once per 15-minute period during turbine operation.

2. 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 parameter monitor 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 C.M.R. ch. 115, BPT]

(18) **Boiler #1**

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

B. The sulfur content of the fuel shall not exceed 20 grains per 100 scf of gas, as documented by a current FERC gas tariff sheet specifying gas quality. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.20	0.20	0.20	-	0.29	0.15	0.02

D. Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

(19) **Generator #1**

A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating during emergency situations. [06-096 C.M.R. ch. 115, BPT]

B. M&N shall keep records that include maintenance conducted on Generator #1 and hours of operation of the engine recorded through a non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as an emergency and how many hours were spent for non-emergency. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	PM	0.05	06-096 C.M.R. ch. 115, BPT

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.46	0.46	0.46	0.01	5.18	4.53	1.94

D. Visible Emissions

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

E. Generator #1 is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generator #1 shall not be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity. [06-096 C.M.R. ch. 115, BPT]

(20) **Parts Washer**

Parts washers at M&N are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

- A. M&N shall keep records of the amount of solvent added to each parts washer.
[06-096 C.M.R. ch. 115, BPT]
- B. M&N must use a solvent with a vapor pressure of 1.00 mmHg, or less, at 20 °C (68 °F).
[06-096 C.M.R. ch. 130 § (3)(E)]
- C. The following are exempt from the requirements of 06-096 C.M.R. ch. 130
[06-096 C.M.R. ch. 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.
- D. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.
 1. M&N shall attach a permanent conspicuous label to each unit summarizing the following operational standards:
 - a. Waste solvent shall be collected and stored in closed containers.
 - b. 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.
 - c. 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.
 - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
 - f. 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.
 - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the parts washer unit.
 - i. 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.

3. Each parts washer shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent.
[06-096 C.M.R. ch. 130]

(21) **Gas Releases and Fugitive Emissions**

- A. M&N shall maintain a log of all gas releases and ESD events that includes the following information:
 1. Date of the event;
 2. Estimated or actual event start time;
 3. Estimated or actual event duration;
 4. Release source;
 5. Event type (shutdown, maintenance, testing, or malfunction);
 6. Description of event;
 7. Estimate of the amount of natural gas vented;
 8. Estimate of VOC density of the released gas; and
 9. Calculation of the tons of VOC emitted based on the VOC content of the gas released.
[06-096 C.M.R. ch. 115, BPT]
- B. 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 C.M.R. ch. 115, BPT]

(22) **Annual Emission Limits**

- A. Total emissions from all sources at the facility addressed in this air emission license shall not exceed the following on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

Pollutant	Tons/year
PM	6.1
PM ₁₀	6.1
PM _{2.5}	6.1
SO ₂	4.1
NO _x	45.6
CO	60.1
VOC	29.9
Single HAP	9.9
Total HAP	9.9

- B. As part of documenting compliance with the annual emission limits listed above, M&N shall include turbine emissions from startup, shutdown, normal operation, low-temperature operation, low load, and transient events and calculate turbine emissions based on the following:

Mode	Calculate Emissions Using Emission Factors Based On ...
Startup	Emission data supplied by the turbine manufacturer at the time of the most recent permit application.
Shutdown	Emission data supplied by the turbine manufacturer at the time of the most recent permit application.
Normal Operation	Licensed emission limits for temperatures above 0 °F.
Low Temperature	Licensed emission limits for appropriate temperature range.
Low Load Operation	Licensed emission limits for temperatures less than or equal to -20 °F.
Transient Event	Licensed emission limits for temperatures less than or equal to -20 °F.

[06-096 C.M.R. ch. 115, BPT]

- C. M&N shall keep monthly records sufficient to document the facility's emissions on a 12-month rolling total basis and shall make these records available to the Department upon request. [06-096 C.M.R. ch. 115, BPT]

(23) **Fugitive Emissions of Particulate Matter**

- A. M&N shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.
- B. M&N shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(24) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(25) **Performance Test Protocol**

For any performance testing required by this license, M&N shall submit to the Department for approval a performance test protocol, as outlined in the Department's Performance

Testing Guidance, at least 30 days prior to the scheduled date of the performance test.
[06-096 C.M.R. ch. 115, BPT]

(26) Annual Emission Statements

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, M&N shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.
- B. M&N shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:
1. The amount of natural gas fired in each unit on a monthly basis;
 2. Calculations of emissions of all regulated pollutants from each emissions unit on a calendar year total basis;
 3. Calculations of the VOC and/or HAP emissions from gas releases and fugitive emissions on a calendar year total basis; and
 4. Hours of operation for each emission unit on a monthly basis.
[06-096 C.M.R. ch. 137]
- C. Every third year, or as requested by the Department, M&N shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. M&N shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

- (27) If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, M&N may be required to submit additional information. Upon written request from the Department, M&N shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter.
[06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 13th DAY OF APRIL, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 4, 2024

Date of application acceptance: June 4, 2024

This Order prepared by Zac Hicks, Bureau of Air Quality.