STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

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| **Maine Army National Guard**<br>**Penobscot County**<br>**Bangor, Maine**<br>**A-755-71-O-A** | **Departmental**<br>**Findings of Fact and Order**<br>**Air Emission License**<br>**Amendment #6** |

## FINDINGS OF FACT

After review of the air emission license amendment 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

Maine Army National Guard (MEARNG) was issued Air Emission License A-755-71-N-R/A on August 8, 2024, for the operation of emission sources associated with their Bangor facilities, including ground vehicle maintenance; rotary wing aircraft staging, service, maintenance, and repair; multiple soldier readiness facilities; and a Regional Training Institute (RTI), at and in the vicinity of the Bangor International Airport.

MEARNG has requested an amendment to their license in order to make the following changes:

1. Retire and remove Co-Gen #1;
2. Remove Co-Gen Unit #3, licensed in 2024 but will not be installed;
3. Add a new Co-Gen Unit #4;
4. Change the expected installation date: Units BAN-E-DG1 and BAN-E-DG2, licensed in 2024 for installation and operation, will now be installed in 2026;
5. Add a new emergency generator, BAN-E-DG3; and
6. Reinstate a previously removed generator, Generator (ARC).

### B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

**Stationary Engines**

| Equipment | Max. Input Capacity (MMBtu/hr) | Rated Output Capacity (kW or HP) | Fuel Type | Firing Rate (gal/hr) | Date of Manuf. | Date of Install. |
|---|---|---|---|---|---|---|
| *Co-Gen #1** | *0.96* | *75 kW* | *Natural Gas* | *930 scf/hr* | *2014* | *2014* |
| *Co-Gen #3 ** | *0.91* | *75 kW* | *Natural Gas* | *879 scf/hr* | *2024* | *2025* |
| Co-Gen #4 ** | 0.55 | 55 kW | Natural Gas | 607 scf/hr | 2025 | 2026 |
| BAN-E-DG1 | 3.44 | 375 kW | Distillate Fuel | 25.1 gal/hr | 2024 | 2026 |
| BAN-E-DG2 | 3.44 | 375 kW | Distillate Fuel | 25.1 gal/hr | 2024 | 2026 |
| BAN-E-DG3 ** | 3.44 | 375 kW | Distillate Fuel | 25.1 gal/hr | 2024 | 2026 |
| Generator (ARC) *** | 2.68 | 378 kW | Distillate Fuel | 19.4 gal/hr | 2014 | 2014 |

* Licensed in 2024, but will not be installed, being removed from license
** New to license
*** Reinstated to license

MEARNG 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, MEARNG 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.

C. Definitions

*Distillate Fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

*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.

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.

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 | 2.0 | 2.0 | 0 | 100 |
| $PM_{10}$ | 2.0 | 2.0 | 0 | 100 |
| $PM_{2.5}$ | 2.0 | 2.0 | 0 | 100 |
| $SO_2$ | 0 | 0 | 0 | 100 |
| $NO_x$ | 24.9 | 23.0 | - 1.9 | 100 |
| CO | 30.9 | 26.2 | - 4.7 | 100 |
| VOC | 0.6 | 0.7 | + 0.1 | 100 |

This modification is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual fuel limit on the boilers and operating hour restriction on the emergency generators and fire pumps, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because MEARNG is subject to license restrictions that keep facility emissions below major source thresholds for $NO_x$; 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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. 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.
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B. Emergency Generators BAN-E-DG1 and BAN-E-DG2

MEARNG licensed the installation and operation of two new emergency generators, BAN-E-DG1 and BAN-E-DG2, in 2024 (A-755-71-N-R/A issued 8/8/2024). Since that time, these two units have not been installed, and MEARNG has changed the installation timeline to 2026. After review of the BACT analysis from the 8/8/2024 license, the Department has determined that there have been no significant new developments in control options or costs that would lead to a different BACT conclusion. Therefore, this license amendment authorizes the installation of these units as described in the 2024 license. In accordance with Standard Condition (3) of Air Emission License A-755-71-N-R/A, this authorizes the facility to begin actual construction on these units within 18 months of the issuance date of this amendment.

C. Emergency Generators BAN-E-DG3 and Generator (ARC)

MEARNG has proposed to install a new emergency generator, BAN-E-DG3, and to reinstate Generator (ARC), which was removed from the license in 2024. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. The emergency generator BAN-E-DG3 has an engine rated at 3.44 MMBtu/hr, fires distillate fuel, and was manufactured in 2024. Generator (ARC) has an engine rated at 2.68 MMBtu/hr, also fires distillate fuel, and was manufactured in 2014.

1. BACT and BPT Findings

Note: BPT is for Generator (ARC); BACT is for Generator BAN-E-DG3.

The BACT and BPT emission limits for Generator (ARC) and Generator BAN-E-DG3 are based on the following:

| | | |
|---|---|---|
| $PM/PM_{10}/PM_{2.5}$ | – | 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103 for BAN-E-DG3<br>0.31 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96 for Generator (ARC) |
| $SO_2$ | – | Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight) |
| $NO_x$ | – | 3.2 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25 |
| CO | – | 0.85 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25 |
| VOC | – | 0.09 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25 |
| Visible Emissions | – | 06-096 C.M.R. ch. 101 |

The BACT and BPT emission limits for Generator (ARC) and Generator BAN-E-DG3 are the following:

| Unit | Pollutant | lb/MMBtu |
|---|---|---|
| BAN-E-DG3 | PM | 0.12 |

| 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) |
|---|---|---|---|---|---|---|---|
| BAN-E-DG3 | 0.41 | 0.41 | 0.41 | 0.01 | 15.17 | 3.27 | 1.24 |
| Generator (ARC) | 0.83 | 0.83 | 0.83 | 0.01 | 11.82 | 2.55 | 0.96 |

Visible emissions from each of Generator (ARC) and Generator BAN-E-DG3 shall not exceed 20% opacity on a six-minute block average basis.

BACT and BPT for Generator (ARC) and Generator BAN-E-DG3 includes recordkeeping of all maintenance conducted on each engine.

2. Chapter 169

Generator (ARC) 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.

*Stationary Generators*, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to BAN-E-DG3. It is an emergency generator powered by an engine with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission

standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standards Requirements

For Generator BAN-E-DG3**,** MEARNG shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart IIII. [06-096 C.M.R. ch. 169, § 4(B)(1)]

b. Chapter 169 Stack Height Requirements

Chapter 169 identifies stack height requirements for any stack used to exhaust a generator engine or combination of generator engines with a combined rated output equal to or greater than 1,000 brake horsepower (747 kW). Individual generator engines with a maximum power capacity of less than 300 kW are not included in the assessment of the combined generator power capacity exhausted through a common stack.

There are no stack height requirements in Chapter 169 applicable to Generator BAN-E-DG3 because it exhausts through its own stack and its rated output is less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards

*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,* 40 C.F.R. Part 60, Subpart IIII is applicable to BAN-E-DG3 and Generator (ARC) since the units were ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart IIII requirements are listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart IIII, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart IIII, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

**There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation.** Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

b. 40 C.F.R. Part 60, Subpart IIII Requirements

(1) Manufacturer Certification Requirement
The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement
The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. MEARNG may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

MEARNG shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(5) Annual Time Limit for Maintenance and Testing
As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement
No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping
MEARNG shall keep records that include the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time.
[40 C.F.R. § 60.4214(b)]

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

   Pursuant to 40 C.F.R. . § 63.6590(c), stationary compression ignition engines subject to regulations under 40 C.F.R. Part 60 must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart IIII. No further requirements apply for such engines under Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

D. Co-Gen Units #1 - #4

MEARNG was previously licensed to operate three Co-Generation units, Co-Gen #1, #2, and #3. Through this licensing action, MEARNG is making the following changes:

- Co-Gen #1 is being removed from the facility and hereby removed from the license.
- Co-Gen #3, licensed for installation and operation in 2024 (in license A-755-71-N-R/A issued 8/8/2024) has not been installed, and MEARNG has decided to not install it. Therefore, it is hereby removed from the license and will not be addressed further in this amendment.
- A new unit, Co-Gen #4, will be installed. BACT for this unit is addressed in this license amendment.

MEARNG had previously accepted a combined hour limit for the Co-Gen units to stay below the ch. 137 reporting threshold of 25 tons/year of $NO_x$. Co-Gen Units #1 and #3 have now been removed from the license, and the limit is no longer needed to keep the facility below 25 tons/year of $NO_x$. This limit is hereby removed from the license.

E. Co-Gen Unit #4

Co-Gen #4 has a combined heat and power system, driven by a natural gas-fired reciprocating engine. Co-Gen #4 generates electricity and captures heat from the generation process that would otherwise be wasted to provide useful thermal energy to the facility. Co-Gen #4 fires natural gas. Co-Gen Unit #4 is rated at 0.55 MMBtu/hr and was manufactured in 2025.

1. BACT Findings

The BACT emission limits for Co-Gen Unit #4 are based on the following:

| | | |
|---|---|---|
| $PM/PM_{10}/PM_{2.5}$ | – | 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT |
| $SO_2$ | – | $5.88 \times 10^{-4}$ lb/MMBtu from AP-42 Table 3.2-3 dated 10/24 |
| $NO_x$ | – | 2.27 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24 |
| CO | – | 3.51 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24 |
| VOC | – | $2.96 \times 10^{-2}$ lb/MMBtu from AP-42 Table 3.2-3 dated 10/24 |
| Visible Emissions | – | 06-096 C.M.R. ch. 115, BACT |

The BACT emission limits for Co-Gen #4 are as follows:

| 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) |
|---|---|---|---|---|---|---|---|
| Co-Gen #4 | 0.03 | 0.03 | 0.03 | 0.01 | 1.25 | 1.93 | 0.02 |

2. Visible Emissions

Chapter 101
Visible emissions from Co-Gen #4 shall not exceed 20% opacity on a six-minute block average basis.

Chapter 115, BACT
Visible emissions from Co-Gen #4 shall not exceed 10% opacity on a six-minute block average basis.

Visible Emission Streamlining
The Department has determined that the BACT visible emission limit is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for Co-Gen #4 has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be included in the Order of this air emission license.

3. Chapter 169

Co-Gen #4 is subject to Chapter 169. It is a non-emergency generator powered by engines with a rated output less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standard Requirements

For Co-Gen #4, MEARNG shall comply with the emission standards for non-emergency generators by complying with the applicable standards contained in 40 C.F.R. part 60, Subpart JJJJ. [06-096 C.M.R. ch. 169, § 4(A)]

b. Chapter 169 Stack height Requirements

Chapter 169 identifies stack height requirements for any stack used to exhaust a generator engine or combination of generator engines with a combined rated output equal to or greater than 1,000 brake horsepower (747 kW). Individual generator engines with a maximum power capacity of less than 300 kW are not included in the assessment of the combined generator power capacity exhausted through a common stack. [06-096 C.M.R. ch. 169, § 6]

There are no stack height requirements in Chapter 169 applicable to Co-Gen #4 because it exhausts through its own stack and has a rated output less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

4. New Source Performance Standards

Co-Gen #4 is subject to *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines,* 40 C.F.R. Part JJJJ, since the unit was ordered after June 1, 2006, and manufactured after July 1, 2008. [40 C.F.R. § 60.4230(a)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart JJJJ requirements is listed below.

a. Emissions Standards
The engine shall meet the emission standards for new non-road spark ignition engines found in C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233(e)]

b. Operation and Maintenance Requirements
Co-Gen #4 shall be operated and maintained according to the manufacturer's written instructions or procedures developed by MEARNG that are approved by the engine manufacturer. MEARNG may only change those settings that are permitted by the manufacturer. In addition, MEARNG shall maintain and operate the air-to-fuel ratio controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 C.F.R. § 60.4243(a) and § 60.4243(g)]

MEARNG shall have available for review by the Department a copy of the manufacturer's written instructions or procedures developed by MEARNG that are approved by the engine manufacturer for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

c. Recordkeeping
MEARNG shall meet the requirements for maintaining and keeping records for Co-Gen #4. These records shall include documentation of all maintenance activities conducted, all notifications that have been submitted to comply with this subpart including corresponding documentation, and the manufacturer's certification that the Co-Gen Units meet the emission standards found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4245(a)]

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

Pursuant to 40 C.F.R. § 63.6590(c), stationary spark ignition engines subject to regulations under 40 C.F.R. Part 60, Subpart JJJJ must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ. No

further requirements apply for such engines under Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

F. 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 assumptions:

- Limiting heat input to the boilers (Boiler 260-5, 260-6, 260-7 and the AFRC-3 and AFRC-4 Boilers) to a combined 35,000 MMBtu/yr;
- Operating the emergency generators and fire pump engines (Generator (RTI), (ARC), BAN-E-DG1, BAN-E-DG2, BAN-E-DG3, and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2) for 100 hrs/yr each; and
- Operating Co-Gen #2 and #4 for 8,760 hrs/yr each.

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 |
|---|---|---|---|---|---|---|---|
| Boilers | 1.4 | 1.4 | 1.4 | -- | 2.5 | 1.4 | 0.1 |
| Fire Pump Engines | 0.1 | 0.1 | 0.1 | -- | 1.2 | 0.3 | 0.1 |
| Emergency Generators (BAN-E-DG Units, ARC, RTI) | 0.2 | 0.2 | 0.2 | -- | 4.1 | 0.9 | 0.3 |
| Co-Gen Units #2 & #4 | 0.3 | 0.3 | 0.3 | -- | 15.2 | 23.5 | 0.2 |
| **Total TPY** | **2.0** | **2.0** | **2.0** | **--** | **23.0** | **26.2** | **0.7** |

| Pollutant | Tons/year |
|---|---|
| Single HAP | 7.9 |
| Total HAP | 19.9 |

## 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 amendment.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed emission units, and previously 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 MEARNG 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 Amendment A-755-71-O-A, subject to the conditions found in Air Emission License A-755-71-N-R/A, and the following conditions.

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

**SPECIFIC CONDITIONS**

**The following shall replace Conditions #18 and #19 of Air Emission License A-755-71-N-R/A:**

(18) **Emergency Generators and Fire Pumps (Generator (RTI), Generator (ARC), BAN-E-DG1, BAN-E-DG2, BAN-E-DG3, and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2)**

A. The fuel sulfur content for the Emergency Generators and Fire Pumps shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [06-096 C.M.R> ch. 115, BPT]

B. Each of the emergency generators and fire pumps shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]

C. MEARNG shall keep records of all maintenance conducted on the engines associated with Generator (RTI), Generator (ARC), BAN-E-DG1, BAN-E-DG2, BAN-E-DG3, and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2. [06-096 C.M.R. ch. 115, BPT]

D. Emissions shall not exceed the following:

| Unit | Pollutant | lb/MMBtu | Origin and Authority |
|---|---|---|---|
| BAN-E-DG1 | PM | 0.12 | 06-096 C.M.R. ch. 103, § (2)(B)(1)(a) |
| BAN-E-DG2 | PM | 0.12 | 06-096 C.M.R. ch. 103, § (2)(B)(1)(a) |
| BAN-E-DG3 | PM | 0.12 | 06-096 C.M.R. ch. 103, § (2)(B)(1)(a) |
| Generator (RTI) | PM | 0.12 | 06-096 C.M.R. ch. 103, § (2)(B)(1)(a) |

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

| 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) |
|---|---|---|---|---|---|---|---|
| BAN-E-DG1 | 0.41 | 0.41 | 0.41 | 0.01 | 15.17 | 3.27 | 1.24 |
| BAN-E-DG2 | 0.41 | 0.41 | 0.41 | 0.01 | 15.17 | 3.27 | 1.24 |
| BAN-E-DG3 | 0.41 | 0.41 | 0.41 | 0.01 | 15.17 | 3.27 | 1.24 |
| Generator (ARC) | 0.83 | 0.83 | 0.83 | 0.01 | 11.82 | 2.55 | 0.96 |
| Generator (RTI) | 0.95 | 0.95 | 0.95 | 0.01 | 25.25 | 6.71 | 0.71 |
| Fire Pump 260-FP1 | 0.43 | 0.43 | 0.43 | 0.002 | 6.16 | 1.33 | 0.50 |
| Fire Pump 260-FP2 | 0.43 | 0.43 | 0.43 | 0.002 | 6.16 | 1.33 | 0.50 |
| Fire Pump 260-FP3 | 0.43 | 0.43 | 0.43 | 0.002 | 6.16 | 1.33 | 0.50 |
| Fire Pump 254-1 | 0.17 | 0.17 | 0.17 | 0.001 | 2.42 | 0.52 | 0.20 |
| Fire Pump 254-2 | 0.17 | 0.17 | 0.17 | 0.001 | 2.42 | 0.52 | 0.20 |

F. Visible Emissions

Visible emissions from Generator (RTI), Generator (ARC), BAN-E-DG1, BAN-E-DG2, BAN-E-DG3, and Fire Pumps 254-1 and 254-2 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

Visible emissions from Fire Pumps 260-FP1, 260-FP2, and 260-FP3 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time MEARNG shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

1. The duration of the startup shall not exceed 30 minutes per event;
2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
3. MEARNG shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.
[06-096 C.M.R. ch. 101, § 4(A)(4)]

G. Generator (RTI), Generator (ARC), BAN-E-DG1, BAN-E-DG2, BAN-E-DG3, and Fire Pumps 254-1 and 254-2 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT and 169]

1. Manufacturer Certification
   The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel
   The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [40 C.F.R. § 60.4207(b)]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing

   a. As emergency engine, the unit shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f)]

   b. MEARNG shall keep records that include the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance
   The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. MEARNG may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

   MEARNG shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

H. Fire Pumps 260-FP1, 260-FP2, and 260-FP3 shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. MEARNG shall meet the following operational limitations for each of the compression ignition emergency engines:

   a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   Records shall be maintained documenting compliance with the operational limitations.

   [40 C.F.R. § 63.6603(a) and Table 2(d)]

2. Oil Analysis Program Option
   MEARNG has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, MEARNG must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6625(i)]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing and Non-Emergency Operating Situations

   a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise to supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f)]

   b. MEARNG shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(e) and (f)]

5. Operation and Maintenance
   The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or MEARNG shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

   MEARNG shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

6. Startup Idle and Startup Time Minimization
   During periods of startup, MEARNG must minimize each engine's time spent at idle and minimize each engine's start time to a period needed for appropriate and

safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(19) **Co-Gen Units #2 and #4**

A. Co-Gen Units #2 and #4 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BPT and BACT]

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

| 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) |
|---|---|---|---|---|---|---|---|
| Co-Gen #2 | 0.05 | 0.05 | 0.05 | 0.01 | 2.07 | 3.19 | 0.03 |
| Co-Gen #4 | 0.03 | 0.03 | 0.03 | 0.01 | 1.25 | 1.93 | 0.02 |

C. Visible Emissions

Visible emissions from each of the Co-Gen units shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT and BACT]

D. Co-Gen Units #2 and #4 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including the following: [incorporated under [06-096 C.M.R. ch. 115, BPT and BACT and ch. 169]

1. Emissions Standards
The engines shall meet the emissions standards for new non-road spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233(e)]

2. Operation and Maintenance Requirements
The engines shall be operated and maintained according to the manufacturer's written instructions or procedures developed by MEARNG that are approved by the engine manufacturer. MEARNG may only change those settings that are permitted by the manufacturer. In addition, MEARNG shall maintain and operate the air-to-fuel ratio controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 C.F.R. § 60.4243(a) and § 60.4243(g)]

MEARNG shall have available for review by the Department a copy of the manufacturer's written instructions or procedures developed by MEARNG that are approved by the engine manufacturer for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

3. Recordkeeping
MEARNG shall meet the requirements for maintaining and keeping records for Co-Gen Units #2 and #4. These records shall include documentation of all

maintenance activities conducted, all notifications that have been submitted to comply with this subpart including corresponding documentation, and the manufacturer's certification that the Co-Gen Units meet the emission standards found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4245(a)]

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

**The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-755-71-N-R/A (issued 08/08/2024).**

[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: 8/29/2025
Date of application acceptance: 9/2/2025

This Order prepared by Jack Doran, Bureau of Air Quality.