



DEPARTMENT ORDER

**Maine Army National Guard
 Penobscot County
 Bangor, Maine
 A-755-71-N-R/A**

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

FINDINGS OF FACT

After review of the air emission license renewal and 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) has applied to renew their Air Emission License for the operation of emission sources associated with their 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 also requested an amendment to remove three generators, Generator DG-260, Generator (FMS #3), and Generator (ARC) and add two generators and one co-generation unit to their license.

B. Emission Equipment

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

Boilers

| Equipment | Location | Max. Capacity (MMBtu/hr) | Maximum Firing Rate | Fuel Type | Date of Manuf. | Date of Install. | Stack # |
|------------------|---|---------------------------------|----------------------------|--------------------------------|-----------------------|-------------------------|----------------|
| Boiler 260-5 | Building #260 (AASF) – 92 Hayes Street | 3.0 | 2,941 scf/hr | Natural gas | 2017 | 2018 | 260-F |
| Boiler 260-6 | | 3.0 | 2,941 scf/hr | Natural gas | 2017 | 2018 | 260-G |
| Boiler 260-7 | | 4.0 | 28.6 gph 3,922 scf/hr | Distillate fuel Natural gas | 2017 | 2018 | 260-H |
| AFRC-3 | AFRC (Armed Forces Reserve Center) – 300 Hildreth Street, North | 1.0 | 980 scf/hr | Natural gas | 2017 | 2018 | AFRC-D |
| AFRC-4 | | 1.0 | 980 scf/hr | Natural | 2017 | 2018 | AFRC-E |

MEARNG also has several small boilers 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 level at or above which would require their inclusion in the license; therefore, these small boilers are not addressed further in this license.

Stationary Engines

| Equipment | Location | Max. Input Capacity (MMBtu/hr) | Rated Output Capacity (kW) | Fuel Type | Firing Rate | Date of Manuf. | Date of Install. |
|--------------------|--|--------------------------------|----------------------------|-----------------|-------------|----------------|------------------|
| Generator (RTI) | Regional Training institute – 289 Hildreth Street, North | 7.89 | 809 | Distillate fuel | 57.2 gal/hr | 2010 | 2010 |
| BAN-E-DG1* | TBD | 3.44 | 375 | Distillate fuel | 25.1 gal/hr | 2024 | 2025 |
| BAN-E-DG2* | TBD | 3.44 | 375 | Distillate fuel | 25.1 gal/hr | 2024 | 2025 |
| Fire Pump 260-FP1 | Building #260 (AASF) – 92 Hayes Street | 1.40 | 144 | Distillate fuel | 10.2 gal/hr | 2002 | 2002 |
| Fire Pump 260-FP2 | | 1.40 | 144 | Distillate fuel | 10.2 gal/hr | 2002 | 2002 |
| Fire Pump 260-FP3 | | 1.40 | 144 | Distillate fuel | 10.2 gal/hr | 2002 | 2002 |
| Fire Pump 254-1 | Building 254 (Hangar – Cold Storage) – 68 Hayes Street | 0.56 | 57.4 | Distillate fuel | 4.0 gal/hr | 2011 | 2011 |
| Fire Pump 254-2 | | 0.56 | 57.4 | Distillate fuel | 4.0 gal/hr | 2011 | 2011 |
| Co-Gen Unit #1 | Building #260 (AASF) – 92 Hayes Street | 0.96 | 75 | Natural gas | 930 scf/hr | 2014 | 2014 |
| Co-Gen Unit #2 | Regional Training Institute – 289 Hildreth Street, North | 0.91 | 75 | Natural gas | 879 scf/hr | 2023 | 2023 |
| Co-Gen Unit #3* | Building #260 (AASF) – 92 Hayes Street | 0.91 | 75 | Natural gas | 879 scf/hr | 2024 | 2025 |
| Generator DG-260** | -- | 4.50 | 461 | Distillate fuel | 31.8 gal/hr | 2002 | 2002 |
| Generator FMS #3** | -- | 1.38 | 142 | Distillate fuel | 10.0 gal/hr | 2009 | 2009 |
| Generator (ARC)** | -- | 2.68 | 378 | Distillate fuel | 19.4 gal/hr | 2014 | 2014 |

* New to license
 ** Removing from 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.

Parts Washers

| Equipment | Capacity (gallons) | Solvent Used | Solvent % VOC |
|------------------|--------------------|-----------------|---------------|
| Sink #1 (FMS #3) | 34 | Mineral spirits | 100 |
| Sink #2 (AASF) | 34 | Mineral spirits | 100 |

Fuel Storage Tank

| Tank | Capacity (gallons) | Material Stored | Tank Type | Control Device | Tank Size (height x diameter) | Installation Year |
|---------------|--------------------|-----------------|--|----------------|-------------------------------|-------------------|
| 9 (Bldg. 260) | 25,000 | Distillate fuel | Single-wall steel with secondary containment | Steel dike | 38.75ft x 10.5 ft | 2005 |

MEARNG uses paints, paint thinner, spray cleaners, and spray paints at their facility. MEARNG uses less than 50 gallons of these coatings and is therefore considered an insignificant activity per *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115, Appendix B, Section B.11. These coatings are not addressed further in this license.

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. Indications 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 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 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.

MEARNG 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 Emission Levels |
|-------------------|-----------------------|----------------------|------------------|-----------------------------|
| PM | 1.8 | 2.0 | 0.2 | 100 |
| PM ₁₀ | 1.8 | 2.0 | 0.2 | 100 |
| PM _{2.5} | 1.8 | 2.0 | 0.2 | 100 |
| SO ₂ | -- | -- | -- | 100 |
| NO _x | 24.9 | 24.9 | -- | 100 |
| CO | 30.9 | 30.9 | -- | 100 |
| VOC | 0.3 | 0.6 | 0.3 | 100 |

Therefore, this license is considered to be both a renewal and a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules C.M.R. ch. 115.

E. Facility Classification

With the annual fuel limit on the boilers and the operating hours restriction on the engines, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because MEARNNG is subject to license restrictions that keep facility emissions below major source thresholds for NO_x and CO; 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.

B. Boilers

MEARNNG operates Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers for heat. The boilers are rated at 3.0 MMBtu/hr, 3.0 MMBtu/hr, 4.0 MMBtu/hr, 1.0 MMBtu/hr, and 1.0 MMBtu/hr, respectively. The boilers all fire natural gas. Boiler 260-7 fires distillate fuel as well. The boilers were all manufactured in 2017 and installed in 2018. Each boiler exhausts through its own stack.

State statute directs that, with limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use in Boiler 260-7 shall not exceed 0.0015% by weight (15 ppm).

1. BPT Findings

The BPT emission limits for Boilers 260-5, 260-6, 260-7 and the AFRC-3 and AFRC-4 Boilers were based on the following:

Distillate Fuel - Boiler 260-7

- PM/PM₁₀/PM_{2.5} – 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- VOC – 0.34 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
- Visible Emissions – 06-096 C.M.R. ch. 101

Natural Gas - Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu based on 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 – 100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
- CO – 84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
- 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 Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers are the following:

| Unit | Pollutant | lb/MMBtu |
|--|-----------|----------|
| Boiler 260-5 | PM | 0.05 |
| Boiler 260-6 | PM | 0.05 |
| Boiler 260-7 <i>Natural gas</i> | PM | 0.05 |
| Boiler 260-7 <i>Distillate fuel</i> | PM | 0.08 |

| 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 260-5 | 0.15 | 0.15 | 0.15 | 0.002 | 0.15 | 0.25 | 0.02 |
| Boiler 260-6 | 0.15 | 0.15 | 0.15 | 0.002 | 0.15 | 0.25 | 0.02 |
| Boiler 260-7 <i>Natural gas</i> | 0.20 | 0.20 | 0.20 | 0.002 | 0.20 | 0.33 | 0.02 |
| Boiler 260-7 <i>Distillate fuel</i> | 0.32 | 0.32 | 0.32 | 0.01 | 0.57 | 0.14 | 0.01 |

| 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) |
|---------------|---------------|-----------------------------|------------------------------|----------------------------|----------------------------|---------------|----------------|
| AFRC 3 Boiler | 0.05 | 0.05 | 0.05 | 0.001 | 0.05 | 0.08 | 0.01 |
| AFRC 4 Boiler | 0.05 | 0.05 | 0.05 | 0.001 | 0.05 | 0.08 | 0.01 |

MEARNG shall be limited to a boiler heat input limit of 35,000 MMBtu/yr on a calendar year total basis, which includes both distillate fuel and natural gas.

2. Visible Emissions

Distillate Fuel

Visible emissions from Boiler 260-7, when firing distillate fuel, shall not exceed 20% opacity on a six-minute block average basis.

Natural Gas

Visible emissions from Boilers 260-5, 260-6, and 260-7 (when firing natural gas) and the AFRC-3 and AFRC-4 Boilers shall each not exceed 10% opacity on a six-minute block average basis.

3. Periodic Monitoring

Periodic monitoring for Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

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

Due to their size, the boilers are 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]

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

Boilers 260-5 and 260-6 and the AFRC-3 and AFRC-4 Boilers are 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. These boilers are natural gas fired boilers, and gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. [40 C.F.R. §§ 63.11193 and 63.11195]

Boiler 260-7 is subject to 40 C.F.R. Part 63, Subpart JJJJJ. The unit is considered a new oil-fired boiler rated less than 5 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

Applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements include the following. Additional rule information can be found on the following website: <https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source>.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) Tune-ups shall be conducted on Boiler 260-7 every five years. [40 C.F.R. § 63.11223(a) and Table 2]

(iii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, submitted to the Department and/or EPA upon request. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler; and
3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

(2) Compliance Report

For every five-year compliance period, MEARNG shall prepare a compliance report by March 1st of the following year to document the information below for the five-year period. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 2. "No secondary materials that are solid waste were combusted in any affected unit."
 3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

b. Recordkeeping

- (1) Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:

- (i) Copies of notifications and reports with supporting compliance documentation;
 - (ii) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
 - (iii) Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - (iv) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.
- (2) Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJ shall be streamlined to the more stringent six-year requirement.

C. Emergency Generators and Fire Pumps

MEARNG operates one emergency generator, specified as Generator (RTI), and proposes to install two more, specified as BAN-E-DG1, and BAN-E-DG2. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. The emergency generators have engines rated at 7.89 MMBtu/hr, 3.44 MMBtu/hr, and 3.44 MMBtu/hr, respectively, which fire distillate fuel. Generator (RTI), BAN-E-DG1, and BAN-E-DG2 were manufactured in 2010, 2024, and 2024, respectively.

MEARNG operates five fire pumps, designated as Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2. Fire Pumps 260-FP1, 260-FP2, 260-FP3 each have an engine rated at 1.40 MMBtu/hr, Fire Pumps 254-1 and 254-2 each have an engine rated at 0.56 MMBtu/hr. Each fire pump engine fires distillate fuel. Fire Pumps 260-FP1, 260-FP2, and 260-FP3 were each manufactured in 2002. Fire Pumps 254-1 and 254-2 were each manufactured in 2011.

1. BPT and BACT Findings

Note: BPT is for Generator (RTI) and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2; BACT is for BAN-E-DG1 and BAN-E-DG2.

The BPT and BACT emission limits for the emergency generators and fire pumps are based on the following:

- PM/PM₁₀/PM_{2.5} – 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
(RTI, BAN-E-DG1, and BAN-E-DG2)
0.31 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
(Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2)
- SO₂ – 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 3.4-1 dated 10/96 (RTI)
4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96 (all others)
- CO – 0.85 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96 (RTI)
0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96 (all others)
- VOC – 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96 (RTI)
0.36 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96 (all others)
- Visible Emissions – 06-096 C.M.R. ch. 101

The BPT and BACT emission limits for the emergency generators and fire pumps are the following:

| Unit | Pollutant | lb/MMBtu |
|-----------------|-----------|----------|
| Generator (RTI) | PM | 0.12 |
| BAN-E-DG1 | PM | 0.12 |
| BAN-E-DG2 | 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) |
|-------------------|------------|--------------------------|---------------------------|-------------------------|-------------------------|------------|-------------|
| Generator (RTI) | 0.95 | 0.95 | 0.95 | 0.01 | 25.25 | 6.71 | 0.71 |
| BAN-E-DG1 | 0.42 | 0.42 | 0.42 | 0.01 | 15.26 | 3.29 | 1.25 |
| BAN-E-DG2 | 0.42 | 0.42 | 0.42 | 0.01 | 15.26 | 3.29 | 1.25 |
| 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 |

Visible emissions from Generator (RTI), BAN-E-DG1, BAN-E-DG2, and Fire Pumps 254-1 and 254-2 shall each not exceed 20% opacity on a six-minute block average basis.

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.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. 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 engines to one startup per day. It only limits the use of the alternative emission standard to once per day.

2. Chapter 169

Generator (RTI) and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2 were installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 (Chapter 169) and are therefore exempt from this rule pursuant to section 1.

BAN-E-DG1 and BAN-E-DG2 are subject to Chapter 169. They are emergency generators 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 BAN-E-DG1 and BAN-E-DG2, 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 III. [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. [06-096 C.M.R. ch. 169, § 6]

There are no stack height requirements in Chapter 169 applicable to BAN-E-DG1 and BAN-E-DG2 because they exhaust through their own stacks and their rated outputs are each less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards (NSPS)

Due to the dates of manufacture of Fire Pumps 260-FP1, 260-FP2, and 260-FP3, these engines are not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CIICE)*, 40 C.F.R. Part 60, Subpart IIII since the units were manufactured prior to July 1, 2006. [40 C.F.R. § 60.4200]

Generator (RTI), BAN-E-DG1, BAN-E-DG2, and Fire Pumps 254-1 and 254-2 are subject to 40 C.F.R. Part 60, Subpart IIII, since the emergency generators were ordered after July 11, 2005, and manufactured after April 1, 2006, and the fire pumps were ordered after July 11, 2005, and manufactured after July 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, Generator (RTI), BAN-E-DG1, BAN-E-DG2, and Fire Pumps 254-1 and 254-2 also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart IIII requirements is 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 III 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) and (c)]

- (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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Fire Pumps 260-FP1, 260-FP2, and 260-FP3. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area

HAP source and are 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]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart ZZZZ requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 63, Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (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 63, Subpart ZZZZ, 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 RICE 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.

Fire Pumps 260-FP1, 260-FP2, and 260-FP3 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements

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

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

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or MEARNG shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions.

[40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

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 Requirement

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

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup 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) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(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. § 63.6640(f)]

(6) Recordkeeping

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(f)]

D. Co-Gen Units

MEARNG operates two Co-Generation Units, specified as Co-Gen Units #1 and #2 and proposes to install another one, specified as Co-Gen Unit #3. The Co-Gen Units have combined heat and power systems, each driven by a natural gas-fired reciprocating engine. Cogeneration systems generate electricity and capture heat from the generation process that would otherwise be wasted to provide useful thermal energy to the facility. The Co-Gen Units fire natural gas. Co-Gen Units #1, #2, and #3 are rated at 0.96, 0.91, and 0.91 MMBtu/hr, respectively. The Co-Gen Units were manufactured in 2014, 2023, and 2024, respectively.

1. BPT and BACT Findings

Note: BPT is for Co-Gen Units #1 and #2; BACT is for Co-Gen Unit #3.

The BPT and BACT emission limits for the Co-Gen Units are based on the following:

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu from 06-096 C.M.R. ch. 115, BPT and BACT
- SO₂ – 5.88 x 10⁻⁴ lb/MMBtu from AP-42 Table 3.2-3 date 7/00
- NO_x – 2.27 lb/MMBtu from AP-42 Table 3.2-3 date 7/00
- CO – 3.51 lb/MMBtu from AP-42 Table 3.2-3 date 7/00
- VOC – 2.96 x 10⁻² lb/MMBtu from AP-42 Table 3.2-3 date 7/00
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT and BACT

The BPT and BACT emission limits for the Co-Gen Units are the following:

| 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 Unit #1 | 0.05 | 0.05 | 0.05 | 0.001 | 2.17 | 3.36 | 0.03 |
| Co-Gen Unit #2 | 0.05 | 0.05 | 0.05 | 0.001 | 2.06 | 3.18 | 0.03 |
| Co-Gen Unit #3 | 0.05 | 0.05 | 0.05 | 0.001 | 2.06 | 3.18 | 0.03 |

Co-Gen Units #1, #2, and #3 shall be limited to a combined 17,400 hours of operation per calendar year. To demonstrate compliance with the operating hours limit, MEARNG shall keep records of the total hours of operation of Co-Gen Units #1, #2, and #3 on a calendar year total basis. A current year-to-date total shall be made available to the Department upon request at any time during the calendar year.

2. Visible Emissions

Chapter 101

Visible emissions from each of the Co-Gen Units shall not exceed 20% opacity on a six-minute block average basis.

Chapter 115, BPT and BACT

Visible emissions from each of the Co-Gen Units shall not exceed 10% opacity on a six-minute block average basis.

Visible Emissions Streamlining

The Department has determined that the BPT and 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 the Co-Gen Units has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be included in the air emission license.

3. Chapter 169

Co-Gen Unit #1 was installed prior to the effective date of Chapter 169 and is therefore exempt from this rule pursuant to section 1.

Co-Gen Units #2 and #3 are subject to Chapter 169. They are non-emergency generators powered by engines with rated outputs 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 Co-Gen Units #2 and #3, 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 Units #2 and #3, because they each exhaust through their own stack and have rated outputs less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

4. New Source Performance Standards

Co-Gen Units #1, #2, and #3 are subject to *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, 40 C.F.R. Part JJJJ, since the units were ordered after June 1, 2006, and manufactured after July 1, 2008. [40 C.F.R. § 60.4230(a)] By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ, Co-Gen Units #1, #2, and #3 meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

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

- a. 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)]
- b. Operation and Maintenance Requirement
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]

- c. Recordkeeping
MEARNG shall meet the requirements for maintaining and keeping records for Co-Gen Units #1, #2, and #3. 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)]

E. Parts Washers

MEARNG operates two remote reservoir cold cleaning parts washers, Sinks #1 and #2, which have design capacities of 34 gallons each. The solvent used in the parts washers are 100% VOC. Therefore, the parts washes are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130, and records shall be kept documenting compliance.

This equipment is exempt from *Industrial Cleaning Solvents*, 06-096 C.M.R. ch. 166 pursuant to Section (3)(B).

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), BAN-E-DG1, BAN-E-DG2, and Fire Pumps 260-FP1, 260-FP2, 260-FP3, 254-1, and 254-2) for 100 hrs/yr each; and
- Operating Co-Gen Units #1, #2, and #3 for a combined total of 17,400 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 |
|----------------------|------------|------------------|-------------------|-----------------|-----------------|-------------|------------|
| Boilers | 1.4 | 1.4 | 1.4 | -- | 2.5 | 1.4 | 0.1 |
| Emergency Generators | 0.1 | 0.1 | 0.1 | -- | 2.8 | 0.7 | 0.2 |
| Fire Pump Engines | 0.1 | 0.1 | 0.1 | -- | 1.2 | 0.3 | 0.1 |
| Co-Gen Units | 0.4 | 0.4 | 0.4 | -- | 18.4 | 28.5 | 0.2 |
| Total TPY | 2.0 | 2.0 | 2.0 | -- | 24.9 | 30.9 | 0.6 |

| Pollutant | Tons/year |
|------------|-----------|
| Single HAP | 9.9 |
| Total HAP | 24.9 |

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 renewal and amendment.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed 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 MEARNNG 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 Renewal and Amendment A-755-71-N-R/A subject to the following conditions.

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 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]
- (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) **Boilers (Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers)**

A. Fuel

1. Boilers 260-5, 260-6, and 260-7 and the AFRC-3 and AFRC-4 Boilers are licensed to fire natural gas. Boiler 260-7 is licensed to fire distillate fuel as well. [06-096 C.M.R. ch. 115, BPT]
2. MEARNG shall be limited to a boiler heat input limit of 35,000 MMBtu/yr on a calendar year total basis, which includes both distillate fuel and natural gas. [06-096 C.M.R. ch. 115, BPT]
3. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
4. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel used (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year total basis. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, a statement from the supplier that the fuel delivered meets Maine's fuel sulfur content standards, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

| Emission Unit | Pollutant | lb/MMBtu | Origin and Authority |
|--|-----------|----------|----------------------------|
| Boiler 260-5 | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| Boiler 260-6 | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| Boiler 260-7 <i>Natural gas</i> | PM | 0.05 | 06-096 C.M.R. ch. 115, BPT |
| Boiler 260-7 <i>Distillate fuel</i> | PM | 0.08 | 06-096 C.M.R. ch. 115, BPT |

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

| Emission 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 260-5 | 0.15 | 0.15 | 0.15 | 0.002 | 0.15 | 0.25 | 0.02 |
| Boiler 260-6 | 0.15 | 0.15 | 0.15 | 0.002 | 0.15 | 0.25 | 0.02 |
| Boiler 260-7 <i>Natural gas</i> | 0.20 | 0.20 | 0.20 | 0.002 | 0.20 | 0.33 | 0.02 |
| Boiler 260-7 <i>Distillate fuel</i> | 0.32 | 0.32 | 0.32 | 0.01 | 0.57 | 0.14 | 0.01 |
| AFRC 3 Boiler | 0.05 | 0.05 | 0.05 | 0.001 | 0.05 | 0.08 | 0.01 |
| AFRC 4 Boiler | 0.05 | 0.05 | 0.05 | 0.001 | 0.05 | 0.08 | 0.01 |

D. Visible Emissions

1. Visible emissions from Boiler 260-7, when firing distillate fuel, shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(2)]
2. Visible emissions from Boiler 260-5, 260-6, and 260-7 (when firing natural gas) and the AFRC-3 and AFRC-4 Boilers shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

E. MEARNG shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boiler 260-7 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. Tune-ups shall be conducted on Boiler 260-7 every five years. [40 C.F.R. § 63.11223(a) and Table 2]
 - b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - (1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
 - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection

until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]

- (4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
- (5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
- (6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

c. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. The report shall contain the following information:

- (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
- (2) A description of any corrective actions taken as part of the tune-up of the boiler; and
- (3) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

2. Compliance Report

For every five-year compliance period, MEARNG shall prepare a compliance report by March 1st of the following year to document the information below for the five-year period. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

- d. The following certifications, as applicable:
- (1) “This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart.”
 - (2) “No secondary materials that are solid waste were combusted in any affected unit.”
 - (3) “This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler’s time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer’s recommended procedures or procedures specified for a boiler of similar design if manufacturer’s recommended procedures are not available.”

3. Recordkeeping

- a. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:
- (1) Copies of notifications and reports with supporting compliance documentation;
 - (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned;
 - (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.
- b. Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJ shall be streamlined to the more stringent six-year requirement.

(18) **Emergency Generators and Fire Pumps (Generator (RTI), BAN-E-DG1, BAN-E-DG2, 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 and BACT]

B. Emissions shall not exceed the following:

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

C. 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) |
|-------------------|------------|--------------------------|---------------------------|-------------------------|-------------------------|------------|-------------|
| Generator (RTI) | 0.95 | 0.95 | 0.95 | 0.01 | 25.25 | 6.71 | 0.71 |
| BAN-E-DG1 | 0.42 | 0.42 | 0.42 | 0.01 | 15.26 | 3.29 | 1.25 |
| BAN-E-DG2 | 0.42 | 0.42 | 0.42 | 0.01 | 15.26 | 3.29 | 1.25 |
| 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 |

D. Visible Emissions

Visible emissions from Generator (RTI), BAN-E-DG1, BAN-E-DG2, 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 engines 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)]

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

F. 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
 - b. 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); and 06-096 C.M.R. ch. 115, BPT]

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) and 06-096 C.M.R. ch. 115]

- 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, the facility must minimize each engine's time spent at idle and minimize each engine's startup 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 #1, #2, and #3**

- A. Co-Gen Units #1, #2, and #3 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BPT and BACT]
- B. Co-Gen Units #1, #2, and #3 shall be limited to a combined 17,400 hours of operation per calendar year. [06-096 C.M.R. ch. 115, BPT and BACT]
- C. MEARNG shall keep records of the total hours of operation of Co-Gen Units #1, #2, and #3 on a calendar year total basis. A current year-to-date total shall be made available to the Department upon request at any time during the calendar year. [06-096 C.M.R. ch. 115, BPT and BACT]

D. 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 Unit #1 | 0.05 | 0.05 | 0.05 | 0.001 | 2.17 | 3.36 | 0.03 |
| Co-Gen Unit #2 | 0.05 | 0.05 | 0.05 | 0.001 | 2.06 | 3.18 | 0.03 |
| Co-Gen Unit #3 | 0.05 | 0.05 | 0.05 | 0.001 | 2.06 | 3.18 | 0.03 |

E. 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]

F. Co-Gen Units #1, #2, and #3 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 Requirement

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 #1, #2, and #3. 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)]

(20) **Parts Washers (Sinks #1 and #2)**

Sinks #1 and #2 at MEARNG are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

- A. MEARNG shall keep records of the amount of solvent added to each parts washer.
[06-096 C.M.R. ch. 115, BPT]
- B. 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.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.
 1. MEARNG 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 machines shall each 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) 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, MEARNG may be required to submit additional information. Upon written request from the Department, MEARNG 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 8th DAY OF AUGUST, 2024.

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: May 3, 2024

Date of application acceptance: May 9, 2024

Date filed with the Board of Environmental Protection:

This Order prepared by Kendra Nash, Bureau of Air Quality.

