



DEPARTMENT ORDER

**Central Maine Medical Center
Androscoggin County
Lewiston, Maine
A-387-71-M-A**

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

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

Central Maine Medical Center (CMMC) was issued Air Emission License A-387-71-K-R on 11/01/2012, for the operation of emission sources associated with its healthcare facility. The license was subsequently amended on 03/07/2018 (A-387-71-L-A).

CMMC has requested an amendment to its license to license the replacement of Generator #1 with a new emergency generator and to change the backup fuel from #6 fuel oil to distillate fuel for Boilers #1-3.

The equipment addressed in this license amendment is located at 300 Main Street, Lewiston, Maine.

B. Emission Equipment

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

Boilers

| Equipment | Max. Capacity (MMBtu/hr) | Maximum Firing Rate | Fuel Type, % sulfur | Installation Date | Stack # |
|------------------|---------------------------------|----------------------------|------------------------------------|--------------------------|----------------|
| Boiler #1 | 25.0 | 167 gal/hr | Distillate Fuel, 0.0015% by weight | 1969 | 1 |
| | | 26, 215 scf/hr | Natural gas, Negligible sulfur | | |
| Boiler #2 | 25.0 | 167 gal/hr | Distillate Fuel, 0.0015% by weight | 1969 | 1 |
| | | 26, 215 scf/hr | Natural gas, Negligible sulfur | | |

| Equipment | Max. Capacity (MMBtu/hr) | Maximum Firing Rate | Fuel Type, % sulfur | Installation Date | Stack # |
|-----------|--------------------------|---------------------|------------------------------------|-------------------|---------|
| Boiler #3 | 9.0 | 60 gal/hr | Distillate Fuel, 0.0015% by weight | 1967 | 1 |
| | | 8,740 scf/hr | Natural gas, Negligible sulfur | | |

Stationary Engines

| Equipment | Max. Input Capacity (MMBtu/hr) | Rated Output Capacity (kW) | Fuel Type, % sulfur | Firing Rate (gal/hr) | Date of Manuf. | Date of Install. | Stack # |
|---------------|--------------------------------|----------------------------|------------------------------------|----------------------|----------------|------------------|---------|
| Generator #1* | 6.7 | 700 | Distillate fuel, 0.0015% by weight | 48.8 | 1975 | 1975 | 2 |
| Generator #4 | 5.9 | 600 | Distillate fuel, 0.0015% by weight | 42.7 | 2018 | 2018 | 7 |

* Unit is being removed

C. Definitions

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel 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.

D. Application Classification

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

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emission” 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 | 16.3 | 16.0 | - 0.3 | 100 |
| PM ₁₀ | 16.3 | 16.0 | - 0.3 | 100 |
| SO ₂ | 27.8 | 0.2 | - 27.6 | 100 |
| NO _x | 44.4 | 35.5 | - 8.9 | 100 |
| CO | 30.5 | 30.5 | 0.0 | 100 |
| VOC | 4.1 | 4.0 | - 0.1 | 50 |

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

E. Facility Classification

With the annual fuel limits on Cogen #1 and the boilers, and the operating hours restriction on the emergency generators, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; 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 Fuel Change

CMMC has requested to change the backup fuel for the boilers from #6 fuel oil to distillate fuel. Based the emission factors introduced in the “BPT Findings” section below, the established fuel limit, and highest-emission scenarios, this change decreases or does not change allowable annual emissions for all regulated pollutants from the boilers. The Department has determined that the fuel change with new distillate fuel emission limits represents BPT and following is the updated highest-emission scenario for the facility:

1. BPT Findings

The BPT emission limits for the boilers are based on the following:

| | Distillate Fuel | Natural Gas |
|---------------------|---|--|
| PM/PM ₁₀ | 0.12 lb/MMBtu 06-096 C.M.R. ch. 115, BPT | 0.05 lb/MMBtu 06-096 C.M.R. ch. 115, BPT |
| SO ₂ | 0.0015 lb/MMBtu The firing of distillate fuel with a sulfur content of 0.0015% by weight | 0.6 lb/MMscf AP-42 Table 1.4-2, dated 07/98 |
| NO _x | 20 lb/1000 gal AP-42 Table 1.3-1, dated 05/10 | 100 lb/MMscf AP-42 Table 1.4-1, dated 07/98 |
| CO | 5 lb/1000 gal AP-42 Table 1.3-1, dated 05/10 | 84 lb/MMscf AP-42 Table 1.4-1, dated 07/98 |
| VOC | 0.34 lb/1000 gal AP-42 Table 1.3-3, dated 05/10 | 5.5 lb/MMscf AP-42 Table 1.4-2, dated 07/98 |
| Visible Emissions | 06-096 C.M.R. ch. 115, BPT | |

The BPT emission limits for the boilers are the following:

| | | Distillate Fuel | Natural Gas |
|-----------|-----------|-----------------|-------------|
| Unit | Pollutant | lb/MMBtu | lb/MMBtu |
| Boiler #1 | PM | 0.12 | 0.05 |
| Boiler #2 | PM | 0.12 | 0.05 |
| Boiler #3 | PM | 0.12 | 0.05 |

| Unit | Fuel | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-----------|-----------------|------------|--------------------------|-------------------------|-------------------------|------------|-------------|
| Boiler #1 | Distillate Fuel | 3.00 | 3.00 | 0.04 | 3.34 | 0.84 | 0.06 |
| | Natural Gas | 1.25 | 1.25 | 0.02 | 2.62 | 2.20 | 0.14 |

| Unit | Fuel | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-----------|-----------------|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Boiler #2 | Distillate Fuel | 3.00 | 3.00 | 0.04 | 3.34 | 0.84 | 0.06 |
| | Natural Gas | 1.25 | 1.25 | 0.02 | 2.62 | 2.20 | 0.14 |
| Boiler #3 | Distillate Fuel | 1.08 | 1.08 | 0.01 | 1.20 | 0.30 | 0.02 |
| | Natural Gas | 0.45 | 0.45 | 0.01 | 0.87 | 0.73 | 0.05 |

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

Visible emissions from Stack #1 shall not exceed 20% opacity on a six-minute block average basis when one of the units is firing distillate fuel.

Visible emissions from Stack #1 shall not exceed 30% opacity on a six-minute block average basis when more than one of the units are firing distillate fuel.

Visible emissions from Stack #1 shall not exceed 10% opacity on a six-minute block average basis when all operating boilers are firing natural gas.

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

CMMC shall be limited to 500,000 gallons of distillate fuel use on a calendar year total basis¹. This limit is based on the previously established annual limit of 500,000 gallons of #6 fuel oil.

Fuel Sulfur Content Requirements

Boilers #1-#3 are licensed to fire distillate fuel. The sulfur content of the distillate fuel fired in the boilers shall not exceed 0.0015% by weight (15 ppm).

2. Periodic Monitoring

CMMC shall document fuel use both on a monthly and calendar year total basis to demonstrate compliance with the distillate fuel use and sulfur content limits. CMMC shall maintain records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered. [06-096 C.M.R. ch. 115, BPT]

3. Federal and State Rules

The fuel change in the boilers does not affect applicability or requirements of any state or federal rule, as specified in A-387-71-L-A.

¹ The accounting basis has been changed from a 12-month rolling total to a calendar year total basis to ease recordkeeping requirements due to the low actual emissions from the facility.

C. Generator #4

CMMC has requested to replace Generator #1 with a new emergency generator, Generator #4. Generator #4 is generator set consisting of an engine and an electrical generator. It has an engine rated at 5.9 MMBtu/hr (a smaller engine than Generator #1) and was manufactured in 2018.

1. BACT Findings

The BACT emission limits for Generator #4 are based on the following:

Distillate Fuel

| | |
|---------------------|--|
| PM/PM ₁₀ | 0.12 lb/MMBtu 06-096 C.M.R. ch. 103 and 06-096 C.M.R. ch. 115, BACT |
| SO ₂ | 0.0015 lb/MMBtu The combustion of distillate fuel with a maximum sulfur content of 0.0015% sulfur by weight |
| NO _x | 3.2 lb/MMBtu AP-42 Table 3.4-1, dated 10/96 |
| CO | 0.85 lb/MMBtu AP-42 Table 3.4-1, dated 10/96 |
| VOC | 0.09 lb/MMBtu AP-42 Table 3.4-1, dated 10/96 |
| Visible Emissions | 06-096 C.M.R. ch. 115, BACT |

The BACT emission limits for Generator #4 are the following:

| Unit | Pollutant | lb/MMBtu |
|--------------|-----------|----------|
| Generator #4 | PM | 0.12 |

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|--------------|------------|--------------------------|-------------------------|-------------------------|------------|-------------|
| Generator #4 | 0.71 | 0.71 | 0.01 | 18.88 | 5.02 | 0.53 |

Visible Emissions Requirements [06-096 C.M.R. ch. 115, BACT]

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

2. 40 C.F.R. Part 60, Subpart IIII

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable Generator #4 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the unit also 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 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 or equipment failure;
- 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 engine 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 engine 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 the engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by CMMC that are approved by the engine manufacturer. CMMC may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall 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

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

D. Annual Emissions

CMMC shall be restricted to the following annual emissions on a calendar year total basis. The tons per year limits were calculated based on of 500,000 gallons of distillate fuel and unlimited natural gas in the boilers (worst-case-scenario was calculated for each pollutant), 100 hours of operation of each emergency generator (with the addition of Generator #4 and the removal of Generator #1), and 8,760 hours of operation of Cogen #1:

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

| | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC |
|----------------------|-------------|------------------|-----------------|-----------------|-------------|------------|
| Boilers | 15.25 | 15.25 | 0.19 | 27.87 | 22.51 | 1.47 |
| Emergency Generators | 0.16 | 0.16 | -- | 4.18 | 1.11 | 0.12 |
| Cogen #1 | 0.57 | 0.57 | 0.01 | 3.42 | 6.83 | 2.39 |
| Total TPY | 16.0 | 16.0 | 0.2 | 35.5 | 30.5 | 4.0 |

| 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 |
| 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.

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-387-71-M-A subject to the conditions found in Air Emission License A-387-71-K-R, in amendment A-387-71-L-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 Condition Replaces Specific Condition (16) in Air Emission License A-387-71-K-R.

(16) Boilers #1-#3

A. Fuel

1. Boilers #1-#3 are licensed to fire distillate fuel and natural gas.
2. Total distillate fuel use for the boilers shall not exceed 500,000 gal/yr on a calendar year total basis. [06-096 C.M.R. ch. 115, BPT]
3. Distillate fuel fired in the boilers shall have a maximum sulfur content not to exceed 0.0015% by weight. [06-096 C.M.R. ch. 115, BPT]
4. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel oil delivered. Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

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

| Unit | Pollutant | Distillate Fuel | Natural Gas |
|-----------|-----------|-----------------|-------------|
| | | lb/MMBtu | lb/MMBtu |
| Boiler #1 | PM | 0.12 | 0.05 |
| Boiler #2 | PM | 0.12 | 0.05 |
| Boiler #3 | PM | 0.12 | 0.05 |

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

| Unit | Fuel | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|-----------|-----------------|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Boiler #1 | Distillate Fuel | 3.00 | 3.00 | 0.04 | 3.34 | 0.84 | 0.06 |
| | Natural Gas | 1.25 | 1.25 | 0.02 | 2.62 | 2.20 | 0.14 |
| Boiler #2 | Distillate Fuel | 3.00 | 3.00 | 0.04 | 3.34 | 0.84 | 0.06 |
| | Natural Gas | 1.25 | 1.25 | 0.02 | 2.62 | 2.20 | 0.14 |
| Boiler #3 | Distillate Fuel | 1.08 | 1.08 | 0.01 | 1.20 | 0.30 | 0.02 |
| | Natural Gas | 0.45 | 0.45 | 0.01 | 0.87 | 0.73 | 0.05 |

D. Visible Emissions Requirements [06-096 C.M.R. ch. 115, BPT]

1. Visible emissions from Stack #1 shall not exceed 20% opacity on a six-minute block average basis when one of the boilers is firing distillate fuel.
2. Visible emissions from Stack #1 shall not exceed 30% opacity on a six-minute block average basis when more than one of the units are firing distillate fuel.
3. Visible emissions from Stack #1 shall not exceed 10% opacity on a six-minute block average basis when all operating boilers are firing natural gas.

E. CMMC shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to each boiler including, but not limited to, the following for as long as the boilers are classified as oil-fired and are subject to the rule:
[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. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. Because the boilers are all classified as oil-fired boilers, and because they don't meet any of the conditions for less frequent tune-up requirements, they are required to be tuned-up every 2 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, not to exceed 36 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, not to exceed 36 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, if requested, submitted to EPA. 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

A compliance report shall be prepared by March 1st biennially which covers the previous two calendar years. 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. 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)]:
 - a. Copies of notifications and reports with supporting compliance documentation;
 - b. 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;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

The Following Condition Replaces Specific Condition 17 in Air Emission License A-387-71-K-R.

(17) Generators #2 and #3

- A. Each of the emergency generators 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]
- B. CMMC 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 the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]
- C. The fuel sulfur content for Generators #2 and #3 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 C.M.R. ch. 115, BPT]
- D. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT/BACT]:

| Unit | Pollutant | lb/MMBtu |
|--------------|-----------|----------|
| Generator #2 | PM | 0.12 |
| Generator #3 | PM | 0.12 |

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

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|--------------|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Generator #2 | 0.68 | 0.68 | 0.01 | 12.24 | 4.85 | 0.51 |
| Generator #3 | 1.74 | 1.74 | 0.02 | 46.40 | 12.33 | 1.31 |

F. Visible emissions from each of the distillate fuel-fired generators shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

G. Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

The Following Condition is in addition to the Conditions listed in Air Emission License A-387-71-K-R

(21) **Generator #4**

A. Generator #4 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

| Unit | Pollutant | lb/MMBtu | Origin and Authority |
|--------------|-----------|----------|-----------------------------|
| Generator #4 | PM | 0.12 | 06-096 C.M.R. ch. 115, BACT |

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

| Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|--------------|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Generator #4 | 0.71 | 0.71 | 0.01 | 18.88 | 5.02 | 0.53 |

D. Visible Emissions

Visible emissions from Generator #4 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

- E. The Generator 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, BACT]
1. **Manufacturer Certification**
The engine 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 engine shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115]
 3. **Non-Resettable Hour Meter**
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]
 4. **Annual Time Limit for Maintenance and Testing**
 - a. As an emergency engine, the unit shall 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]
 - b. CMMC shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by CMMC that are approved by the engine manufacturer. CMMC may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

DONE AND DATED IN AUGUSTA, MAINE THIS 20 DAY OF September, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-387-71-K-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 07/27/2018

Date of application acceptance: 08/06/2018

Date filed with the Board of Environmental Protection:

This Order prepared by Colby Fortier-Brown, Bureau of Air Quality.

