



DEPARTMENT ORDER

**Eastern Maine Healthcare Systems
Penobscot County
Brewer, Maine
A-915-71-E-M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

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

Eastern Maine Healthcare Systems (EMHS) was issued Air Emission License A-915-71-D-R on September 13, 2012, for the operation of emission sources associated with their health care administrative facility.

EMHS has requested a minor revision to their license in order to address the following:

- Installation of a fuel delivery system in the Cianchette Building (Building #1) which shall supply distillate fuel to Boilers #1 and #2 and Generator #1 from a common tank.
- Update to the definition of "distillate fuel". References to "#2 fuel oil" and "diesel fuel" shall be replaced with "distillate fuel".
- Update to the fuel sulfur content language per 38 M.R.S § 603-A(2)(A)(3).
- Add 40 C.F.R. Part 63, Subpart JJJJJ language to the order section of this license including the requirements for fuel switching in affected boilers.
- Update to the generator operating limits to 100 hours of non-emergency service as to be in agreement with the Department's policy and federal regulations.
- Update to the visible emission limits for licensed fuel burning equipment

The equipment addressed in this license amendment is located in two buildings: Building #1, the Cianchette Building, is located at 43 Whiting Hill Road; and Building 2 is located at 33 Whiting Hill Road, both in Brewer, Maine.

B. Emission Equipment

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

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Instal lDate</u>	<u>Stack #</u>
Building 1, Boiler #1	4.2	4118 scf-hr	Natural gas	2004	1
		30 gph	Distillate Fuel, *0.0015		
Building 1, Boiler #2	4.2	4118 scf-hr	Natural gas	2004	
		30 gph	Distillate Fuel, *0.0015		
Building 2, Boiler #3	3.75	3644 scf-hr	Natural gas	2007	3
		26 gph	Distillate Fuel, 0.5		
Building 2, Boiler #4	3.75	3644 scf-hr	Natural gas	2007	
		26 gph	Distillate Fuel, 0.5		

*Distillate fuel sulfur content after the fuel system conversion.

EMHS has a 0.2 MMBTU/hr hot water heater which is considered insignificant and listed here for informational purposes only.

Generators

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Rated Output Capacity (kW)</u>	<u>Fuel Type, % sulfur</u>	<u>Firing Rate (gal/hr)</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
Building 1-Generator #1	2.63	270	Distillate Fuel, 0.0015	19.1	2003	2004	2
Building 2-Generator #2	8.54	750	Distillate Fuel, 0.0015	62.3	2007	2007	4

C. Definitions

Distillate Fuel. For the purposes of this license, *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.

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.

This amendment will not increase emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

II. **BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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

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

B. Boilers

EMHS operates Boilers #1 and #2 to provide heat Building #1. The boilers are each rated at 4.2 MMBtu/hr and fire primarily natural gas utilizing distillate fuel as a back-up fuel. The boilers were installed in 2004 and exhaust through Stack #1.

1. BPT Findings

The BPT emission limits for Boilers #1 and #2 after the installation of the new fuel delivery system are based on the following:

Distillate Fuel

- PM/PM₁₀ – 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/1000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 5 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
- VOC – 0.34 lb/1000 gal based on AP-42 Table 1.3-3 dated 5/10
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

The natural gas emission factors and emission limits remain unchanged from license A-915-71-D-N (9/13/2012), except for the visible emission limits.

The BPT emission limits for the Boilers #1 and #2 each when firing distillate fuel after the fuel system conversion are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #1, Distillate Fuel (4.2 MMBtu/hr)	0.34	0.34	0.01	0.60	0.15	0.01
Boiler #2, Distillate Fuel (4.2 MMBtu/hr)	0.34	0.34	0.01	0.60	0.15	0.01

When firing distillate fuel, visible emissions from the combined stack serving Boilers #1 and #2 (Stack #1) and the combined stack serving Boilers #3 & #4 (Stack #2) shall each not exceed 20% opacity on a six-minute block average basis.

When firing natural gas fuel, visible emissions from the combined stack serving Boilers #1 and #2 (Stack #1) and the combined stack serving Boilers #3 & #4 (Stack #2) shall each not exceed 10% opacity on a six-minute block average basis.

EMHS shall be limited to firing a combination of natural gas and distillate fuel not to exceed a heat input of 14,000 MMBtu/year for Boilers #1 and #2. EMHS shall be limited to firing a combination of natural gas and distillate fuel not to exceed a heat input of 16,000 MMBtu/year for Boilers #3 and #4.

Fuel Sulfur Content Requirements

Boilers #1 - #4 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boilers #3 and #4 shall not exceed 0.0015% by weight (15 ppm).

2. Periodic Monitoring

Periodic monitoring for the 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.

EMHS, shall notify the Department when the Building #1 fuel system conversion is complete.

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

EMHS is currently 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. Should any of the EMHS's boilers become subject, they will be considered existing oil boilers, rated less than 10 MMBtu/hr. [40 C.F.R. §§63.11193 and 63.11195]

Boilers #1 - #4 are dual fuel boilers combusting primarily natural gas and presently meet the definition of 'gas-fired boilers'.

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 C.F.R. § 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010, will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

Fuel Switching

EMHS has been operating its boilers as “gas-fired” boilers since prior to the Subpart JJJJJ compliance date of March 21, 2014. If EMHS no longer operates one or more of its boilers as gas-fired boilers, EMHS shall be subject to the following provisions:

- a. EMHS shall demonstrate compliance with Subpart JJJJJ to EPA and the Department for the affected boiler(s) within 180 days of the effective date of the fuel switch. [40 C.F.R. § 63.11210(i)]
- b. Notification of the changes shall be submitted within 30 days of the change and shall provide the following:
 - (1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, whether the boilers were physically changed or took a permit limit, and the date of the notice.
 - (2) The date upon which the fuel switch, physical change, or permit limit occurred. [40 C.F.R. § 63.11225(g)]
- c. EMHS shall complete the initial performance tune-up on each boiler firing distillate fuel, by following the procedures described in §63.11223(b), no later than 180 days after the boiler(s) begins firing distillate fuel. [40 C.F.R. § 63.11210(i)]
- d. An Initial Notification submittal to EPA is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]
- e. Upon completing the initial boiler tune-up, EMHS shall submit a Notification of Compliance Status (NOCS). The NOCS shall be submitted within 120 days of the compliance date (which is 180 days after the switch). EPA requires submission of Notification of Compliance Status reports for tune-ups through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)]

Notification forms and 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>.

f. Boiler Tune-Up Program

- (1) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]
- (2) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
Oil fired boilers with a heat input capacity of \leq 5MMBtu/hr	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

- (3) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
- (a) 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 for oil fired boilers. [40 C.F.R. § 63.11223(b)(1)]
 - (b) 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)]
 - (c) 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)]
 - (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - (e) 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)]
 - (f) 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)]
- (4) 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)]

g. Compliance Report

A compliance report shall be prepared by March 1st every five years which covers the previous five 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)]

- (1) Company name and address;
- (2) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (3) 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;
- (4) The following certifications, as applicable:
 - (a) "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."
 - (b) "No secondary materials that are solid waste were combusted in any affected unit."
 - (c) "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."

h. Recordkeeping

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.

Records shall be in a form suitable and readily available for expeditious review.
[40 C.F.R. § 63.11225(a)(4)(vi)]

C. Generators

EMHS operates two emergency generators. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. Emergency Generator #1 is distillate fuel fired and is rated at 2.63 MMBtu/hr. This unit is located in Building 1. It was manufactured in 2003 and installed in 2004.

Generator #2 fires distillate fuel and is rated at 8.54 MMBtu/hr. The unit is located Building 2 and was manufactured and installed in 2007. Generator #2 is Tier 2 certified in accordance with US EPA 2008 US EPA and California regulations for large non-road compression ignition engines.

1. BACT /BPT Findings

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

Distillate Fuel

- PM/PM₁₀ – 0.12 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing 0.0015% sulfur, 0.0015 lb/MMBtu
- NO_x – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)
- CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)
- VOC – 0.35 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)
- Opacity – Visible emissions from Generator #1 shall not exceed 20% opacity on a 6-minute block average. [06-096 C.M.R. ch. 115, BPT]

The BACT/BPT emission limits for Generator #2 are based on the following:

Distillate Fuel

- PM/PM₁₀ – 0.12 lb/MMBtu Chapter 103
- SO₂ – based on firing 0.0015% sulfur, 0.0015 lb/MMBtu
- 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)
- Opacity – Visible emissions from Generator #2 shall not exceed 20% opacity on a 6-minute block average. [06-096 C.M.R. ch. 115, BPT]

The BACT/BPT emission limits for the generators are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator #1 (2.63 MMBtu/hr), Distillate Fuel	0.31	0.31	0.01	11.55	2.49	0.92
Generator #2 (8.54 MMBtu/hr), Distillate Fuel	1.02	1.02	0.01	27.31	7.25	0.77

Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, EMHS shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Refer to original license A-915-71-D-N (9/13/12) for additional requirements.

D. Annual Emissions

EMHS shall be restricted to the following annual emissions, based on a calendar year. The tons per year were based on the following:

1. EMHS shall be limited to firing a combination of distillate fuel and natural gas not to exceed 14,000 MMBtu/yr on a calendar year basis in Boiler #1 and #2.
2. EMHS shall be limited to firing a combination of distillate fuel and natural gas not to exceed 16,000 MMBtu/yr on a calendar year basis in Boilers #3 and #4.
3. Generators #1 and #2 operating 100 hours of per calendar year.

**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
Building 1						
*Boilers #1 & #2	0.56	0.56	0.01	1.00	0.57	0.04
Generator #1	0.02	0.02	0.01	0.58	0.12	0.05
Building 2						
*Boilers #3 & #4	0.64	0.64	4.03	1.14	0.65	0.04
Generator #2	0.05	0.05	0.01	1.37	0.36	0.04
Total TPY	1.27	1.27	4.06	4.09	1.70	0.17

* PM, SO₂, NO_x emissions from the boilers are based on the worst-case scenario of firing 100% distillate fuel. CO and VOC emissions from the boilers are based on the worst-case scenario of firing 100% natural gas.

4. **Greenhouse Gases**

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 C.F.R. Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing

purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use limits, the worst-case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98, and the global warming potentials contained in 40 C.F.R. Part 98, EMHS is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

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

The Department hereby grants Air Emission License Amendment A-915-71-E-M subject to the conditions found in Air Emission License A-915-71-D-N and the following conditions.

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

SPECIFIC CONDITIONS

This condition replaces Condition (16) in Air Emission License A-915-71-D-N (9/13/2012).

(16) Boilers #1, #2, #3, and #4

A. Fuel

1. Boilers #1 and #2 shall be limited to firing a combination of natural gas and distillate fuel not to exceed a heat input of 14,000 MMBtu/yr. Boilers #3 and #4 shall be limited to firing a combination of natural gas and distillate fuel not to exceed a heat input of 16,000 MMBtu/yr, on a calendar year total basis.
2. Prior to July 1, 2018, Boilers #3 and #4 shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight. [06-096 C.M.R. ch. 115, BPT/BACT]

3. Beginning July 1, 2018, 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/BACT]
4. Prior to the conversion of the fuel delivery system, Boilers #1 and #2 shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight.
5. Once the fuel system in Building 1 is converted such that Boiler ##1, Boiler #2, and Generator #1 are supplied distillate fuel from a common tank, Boilers #1 and #2 shall be limited to distillate fuel with a maximum sulfur content not to exceed 0.0015% by weight when firing distillate fuel.
6. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and a calendar year total basis. [06-096 C.M.R. ch. 115, BPT/BACT]
7. EMHS shall notify the Department when the converted fuel system becomes operational. [06-096 C.M.R. ch. 115, BPT/BACT]

B. Emissions prior to and after fuel delivery conversion shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boiler #1 & #2, distillate fuel	PM	0.08	06-096 C.M.R. ch. 115, PBT
Boiler #3 & #4, distillate fuel	PM	0.08	06-096 C.M.R. ch. 115, BPT
Boiler #1 & #2, natural gas	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #3 & #4, natural gas	PM	0.05	06-096 C.M.R. ch. 115, BPT

C. Emissions from Boiler #1 and #2 prior to the conversion of the fuel delivery system shall not exceed the following: [06-096 C.M.R. ch. 115, BACT/BPT]:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Boiler #1 & #2, each (4.2 MMBtu/hr), distillate fuel	0.34	0.34	2.12	0.60	0.15	0.01
Boiler #3 & #4, each (3.75 MMBtu/hr), distillate fuel	0.30	0.30	1.89	0.54	0.13	0.01
Boiler #1 & #2, each (4.2 MMBtu/hr), natural gas	0.21	0.21	0.01	0.41	0.35	0.02
Boiler #3 & #4, each (3.75MMBtu/hr), natural gas	0.19	0.19	0.01	0.37	0.31	0.02

D. Visible Emissions

1. Visible emissions from the combined stacks serving Boilers #1 and #2 and Boilers #3 and #4 when boilers are firing distillate fuel shall each not exceed 20% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
2. Visible emissions from the combined stacks serving Boilers #1 and #2 and Boilers #3 & #4 when boilers are firing natural gas shall each not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

E. Emissions from Boiler #1 and #2 after the conversion of the fuel delivery system for shall not exceed the following: [06-096 C.M.R. ch. 115, BACT/BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 & #2, each (4.2 MMBtu/hr), distillate fuel	0.34	0.34	0.01	0.60	0.15	0.01
Boiler #1 & #2, each (4.2 MMBtu/hr), natural gas	0.21	0.21	0.01	0.41	0.35	0.02

The following replaces Condition (17) A. and E. in Air Emission License A-915-71-D-N (9/13/2012).

(17) **Emergency Generators**

A. Generators #1 and #2 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, EMHS shall keep records of the total hours of operation, the reason the unit was operated, and the hours of emergency operation for each unit.
[06-096 C.M.R. ch. 115, BPT/BACT]

E. Visible Emissions from Generator #1 and #2 shall each not exceed 20% opacity on a 6-minute block average. [06-096 C.M.R. ch. 115, BPT]

The following is a new condition.

(19) **40 C.F.R. Part 63, Subpart JJJJJ**

EMHS shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ as applicable to Boilers #1 - #4 including, but not limited to, the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]

A. If EMHS switches fuels in any of their boilers so the boiler(s) no longer meets the definition of a "gas fired boiler", EMHS shall demonstrate compliance with

Subpart JJJJJ for the affected boiler(s) within 180 days of the effective date of the fuel switch. [40 C.F.R. § 63.11210(i)]

- B. Notification of the changes shall be submitted to the EPA and the Department within 30 days of the change and shall provide the following:
 - a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, whether the boilers were physically changed or took a permit limit, and the date of the notice.
 - b. The date upon which the fuel switch, physical change, or permit limit occurred. [40 C.F.R. § 63.11225(g)]
- C. EMHS shall complete the initial performance tune-up on each boiler firing distillate fuel, by following the procedures described in §63.11223(b), no later 180 days after the boiler(s) begins firing distillate fuel. [40 C.F.R. § 63.11210(k)(2)]
- D. An Initial Notification submittal to EPA and to the Department is due within 120 days after EMHS becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]
- E. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - 1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
Existing Oil fired boilers with a heat input capacity of ≤5MMBtu/hr	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

- 2. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - a. 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 for oil fired boilers. [40 C.F.R. § 63.11223(b)(1)]
 - b. 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)]
 - c. 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)]
 - d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - e. 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)]

- f. 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)]

3. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
- 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;
 - A description of any corrective actions taken as part of the tune-up of the boiler; and
 - 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)]
4. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA. The NOCS shall be submitted within 120 days of the compliance date.
[40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(b)]
5. EPA requires submission of Notification of Compliance Status reports for tune-ups through their electronic reporting system.

F. Compliance Report

A compliance report shall be prepared by March 1st every five years which covers the previous five 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)]

- Company name and address;
- A statement of whether the source has complied with all the relevant requirements of this Subpart;
- 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;
- The following certifications, as applicable:
 - "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."

- (b) "No secondary materials that are solid waste were combusted in any affected unit."
- (c) "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."

- G. 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.

Records shall be in a form suitable and readily available for expeditious review.

DONE AND DATED IN AUGUSTA, MAINE THIS 2 DAY OF April, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Mercer
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-915-71-D-N (9/13/12).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 1/18/2018
Date of application acceptance: 1/22/2018

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

