



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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City of Portland – Merrill Auditorium
Cumberland County
Portland, Maine
A-987-71-C-N (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal – After-the-Fact

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

1. The Air Emission License for the City of Portland – Merrill Auditorium (City of Portland), expired on February 25, 2013. The City of Portland has applied to renew their expired license permitting the operation of emission sources associated with their public assembly building.
2. The equipment addressed in this license is located at 20 Myrtle Street, Portland, ME.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Maximum Capacity</u> (MMBtu/hr)	<u>Maximum Firing Rate</u>	<u>Fuel Type,</u> <u>% sulfur</u>	<u>Install.</u> <u>Date</u>	<u>Stack</u> <u>#</u>
Boiler #1	5.68	5569 scfh 39.6 gph	Natural gas #2 fuel oil, 0.5%S	1978	1
Boiler #2	5.68	5569 scfh 39.6 gph	Natural gas #2 fuel oil, 0.5%S	1996	1

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17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
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106 HOGAN ROAD, SUITE 6
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312 CANCO ROAD
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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
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Generators

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Install. Date</u>	<u>Stack #</u>
Generator #1	1.7	12.4	Diesel, 0.0015% S	1994	G1

C. Application Classification

The previous air emission license for the City of Portland expired on February 25, 2013. A complete application was not submitted prior to the expiration date, therefore the City of Portland is considered to be an existing source applying for an after-the-fact renewal. The Department has determined the facility is a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the fuel limit on Boilers #1 and #2, and the operating hours restriction on the emergency generator, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per 06-096 CMR 115 (as amended).

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 #1 and #2

The City of Portland operates Boilers #1 and #2 for heat. The boilers have a maximum heat input rate of 5.68 MMBtu/hr, firing natural gas at a maximum rate of 5569 standard cubic feet per hour, or #2 fuel oil at a maximum rate of 39.6 gallons per hour. The boilers were installed in 1978 and 1996 respectively. Boilers #1 and #2 exhaust through common Stack #1.

Due to the size of the boilers, they are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BPT Findings

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

Natural gas

PM/PM ₁₀	– 0.05 lb/MMBtu based on 06-096 CMR 103
SO ₂	– 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)
NO _x	– 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)
CO	– 84 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)
VOC	– 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)
Opacity	– Visible emissions from each boiler firing natural gas shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a (3) hour period. (06-096 CMR 101, previous BACT (A-987-71-B-A))

#2 Fuel Oil

PM/PM ₁₀	– 0.08 lb/MMBtu based on 06-096 CMR 103
SO ₂	– 0.5 lb/MMBtu based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur)
NO _x	– 0.4 lb/MMBtu based on previous licenses
CO	– 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10
VOC	– 0.34 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10
Opacity	– Visible emissions from each boiler firing # 2 fuel oil shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period. (06-096 CMR 101, previous BACT (A-987-71-B-A))

The BPT emission limits for the boilers are the following:

<u>Unit</u>	<u>PM</u> (lb/hr)	<u>PM₁₀</u> (lb/hr)	<u>SO₂</u> (lb/hr)	<u>NO_x</u> (lb/hr)	<u>CO</u> (lb/hr)	<u>VOC</u> (lb/hr)
Boiler #1 – Natural gas	0.28	0.28	0.01	0.56	0.47	0.03
Boiler #2 – Natural gas	0.28	0.28	0.01	0.56	0.47	0.03
Boiler #1 – #2 Fuel oil	0.45	0.45	2.86	2.27	0.20	0.01
Boiler #2 – #2 Fuel oil	0.45	0.45	2.86	2.27	0.20	0.01

The City of Portland shall be limited to the equivalent of 14,000 million British thermal units per year (MMBtu/yr) for the boilers, comprised of not more than 100,000 gallons of #2 fuel oil or not more than 13.7 million standard cubic feet of natural gas, or any combination thereof, based on a calendar year.

Prior to January 1, 2016 or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in Boilers #1 and #2 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning January 1, 2016 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use both on a monthly and calendar year basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

2. 40 CFR Part 63 Subpart JJJJJ

Boilers #1 and #2 may be subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). These units are considered existing oil boilers less than 10 MMBtu/hr.

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJJ. However, boilers which fire #2 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 CFR Part 63.11237]

Any boilers designed to burn fuels besides natural gas prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires natural gas, but converts back to firing another fuel (such as #2 fuel oil) in the future, would become subject as an existing boiler at the time it is converted back to fuel oil.

For informational purposes, a summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ requirements is listed below. At this time, the Maine Department of Environmental Protection has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however the City of Portland is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA is due no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

- (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 for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 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 CFR Part 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 for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 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 CFR Part 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 CFR Part 63.11223(b)(7)]
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

- (d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
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
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of ≤ 5 MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, 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. [40 CFR Part 63.11223(b)(6)]

The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; 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; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

Note: EPA will require submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. However, the system will not be in place until October 2013, so sources may submit the written NOCS to the EPA Administrator. [63.1125(a)(4)(vi)]

C. Emergency Generator #1

The City of Portland operates an emergency generator rated at 1.7 MMBtu/hr, firing diesel fuel. The generator was manufactured in 1994.

1. BPT Findings

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

- PM/PM₁₀ – 0.12 lb/MMBtu, 06-096 CMR 103
- SO₂ – based on firing 0.05% sulfur, 0.05 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 – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)
- Opacity – Visible emissions from the diesel emergency generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a three (3) hour period. 06-096 CMR 101

The BPT emission limits for the generator are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Generator #1	0.2	0.2	0.1	7.5	1.6	0.6

The emergency generator shall be limited to 500 hours of operation a year, based on a calendar year. The City of Portland shall keep records of the hours of operation for the generator.

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 for more than 15 hours per calendar year 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.

2. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is not applicable to the emergency generator listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source; however, it is considered exempt from the requirements of Subpart ZZZZ as it is categorized as an institutional emergency engine and it does not operate or is not contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii).

Operation of the emergency generator such that it exceeds 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii), would cause the generator to be subject to 40 CFR Part 63, Subpart ZZZZ, and shall comply with all applicable requirements.

3. 40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is not applicable to the emergency generator as it was ordered before July 11, 2005 and manufactured before April 1, 2006.

D. Annual Emissions

1. Total Annual Emissions

The City of Portland shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on a facility limit of 14,000 million British thermal units per year, comprised of 100,000 gallons per year of #2 fuel oil, or 13.7 million standard cubic feet per year of natural gas, or any combination thereof, and an operating limit of 500 hours per year for the emergency generator.

Total Licensed Annual Emissions for the Facility
Tons per year*
(Used to calculate the annual license fee)

<u>Unit</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Boilers #1 & #2	0.6	0.6	3.5	2.8	0.6	0.1
Generator #1	0.1	0.1	0.1	1.9	0.4	0.2
Total TPY	0.7	0.7	3.6	4.7	1.0	0.3

*Worst case figures for firing #2 fuel oil, with the exception of CO which is based on the worse case for firing natural gas.

2. 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 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 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 limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, the City of Portland 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.

III. AMBIENT AIR QUALITY ANALYSIS

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

<u>Pollutant</u>	<u>Tons/Year</u>
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total facility licensed emissions 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 A-987-71-C-N subject to the following conditions:

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

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.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 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 CMR 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 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 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 CMR 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 CMR 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 CMR 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 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR 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 CFR 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 CMR 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 such test results, 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 CFR 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 CMR 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 Part 70 license requirement. [06-096 CMR 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 CMR 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 CMR 115]

SPECIFIC CONDITIONS

(16) Boilers #1 and #2

A. Fuel

1. Total fuel use for Boilers #1 and #2 shall not exceed 14,000 million British thermal units per year, comprised of 100,000 gallons per year of #2 fuel oil, or 13.7 million standard cubic feet of natural gas, or a combination thereof, based on a calendar year.
2. Prior to January 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in the boiler shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
3. Beginning January 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
4. Beginning January 1, 2018 or the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
5. 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 calendar year basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boiler #1 - nat. gas	PM	0.05	06-096 CMR 103(2)(B)(1)(a)
Boiler #2 - nat. gas	PM	0.05	06-096 CMR 103(2)(B)(1)(a)
Boiler #1 - #2 fuel	PM	0.08	06-096 CMR 103(2)(B)(1)(a)
Boiler #2 - #2 fuel	PM	0.08	06-096 CMR 103(2)(B)(1)(a)

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

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #1 - nat. gas	0.28	0.28	0.01	0.55	0.46	0.03
Boiler #2 - nat. gas	0.28	0.28	0.01	0.55	0.46	0.03
Boiler #1 - #2 fuel	0.45	0.45	2.86	2.27	0.20	0.01
Boiler #2 - #2 fuel	0.45	0.45	2.86	2.27	0.20	0.01

D. Visible Emissions

1. Visible emissions from the common stack serving Boilers #1 and #2, when firing natural gas, shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period. [06-096 CMR 101]
2. Visible emissions from the common stack serving Boilers #1 and #2, when firing #2 fuel oil, shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period. [06-096 CMR 101]

(17) **Emergency Generator # 1**

- A. The Emergency Generator is limited to 500 hours per year total operation, based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115]
- B. The fuel oil sulfur content for the emergency generator shall be limited to 0.0015% sulfur. 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 CMR 115, BPT]
- C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

<u>Unit</u>	<u>PM</u> (lb/hr)	<u>PM₁₀</u> (lb/hr)	<u>SO₂</u> (lb/hr)	<u>NO_x</u> (lb/hr)	<u>CO</u> (lb/hr)	<u>VOC</u> (lb/hr)
Emergency Generator	0.20	0.20	0.09	7.50	1.62	0.60

D. Visible Emissions

Visible emissions from the emergency generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a three (3) hour period. [06-096 CMR 101]

E. 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 for more than 15 hours per calendar year 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.

- (18) The City of Portland 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.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 9 DAY OF May, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Ms. Allen Robert Corse for
PATRICIA W. AHO, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 02/25/2013

Date of application acceptance: 03/15/2013

Date filed with the Board of Environmental Protection:

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.



