STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Penobscot Bay Medical Center
Knox County
Rockport, Maine
A-504-71-J-R (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal

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., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Penobscot Bay Medical Center (PBMC) of Rockland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with this full service community hospital. The equipment addressed in this license is located at 6 Glen Cove Road, Rockport, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type 0.5% sulfur	Date of Installation	Stack #
Boiler #1	8.17	54.5	#2 fuel oil #6 fuel oil	2008	1
Boiler #2	8.17	54.5			
Boiler #3	8.17	54.5			

Note: The capacities of Boilers #1, #2, and #3 stated above are slightly different than what is stated in the previous license. However, these values are as stated on the boiler nameplates and have been used to calculate the hourly and annual emission limits contained in this license.

Generators

Equipment	Max. Capacity (MMBtu/hr)	Firing Rate gal/hr	Date of Installation	Fuel
Generator #1A	4.9	35.8	1975	Diesel, 0.0015% sulfur
Generator #2A	2.1	15.3	1996	
Generator #3	4.7	34.4	2010	

C. Application Classification

The application for PBMC does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the fuel use limits on Boilers #1, #2, and #2 and the operating hours restriction on the emergency generators, 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 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, #2 and #3

PBMC operates Boilers #1, #2, and #3 to provide heat, ventilation, and domestic hot water for the facility. Boilers #1, #2 and #3 are Cleaver Brooks firetube boilers manufactured in 2008 with a maximum heat input capacity of 8.17 MMBtu/hr each and a maximum firing rate of 54.5 gal/hr each of fuel oil. The boilers are designed with a low emissions package utilizing a combustion air fan for induced flue gas recirculation. These boilers are licensed to fire either No. 2 fuel oil or No. 6 fuel oil, both with a sulfur content not to exceed 0.5% by weight.

Due to the size of these boilers, they are not subject to New Source Performance Standards (NSPS) found in 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:

PM, PM_{10} – 0.12 lb/MMBtu when firing No. 6 fuel oil,
0.08 lb/MMBtu when firing No. 2 fuel oil,
[06-096 CMR 103, BPT]

SO_2 – 0.5 lb/MMBtu
Low Sulfur Fuel, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content. However, the use of #2 fuel oil that meets the criteria in ASTM D396, or the firing of #6 fuel oil with a sulfur content not to exceed 0.5%, is more stringent and shall be considered BPT.

NO_X – 55.0 lb/1000 gal when firing No. 6 fuel oil
20.0 lb/1000 gal when firing No. 2 fuel oil
[AP-42, Table 1.3-1, dated 5/10]

CO – 5 lb/1000 gal [AP-42, Table 1.3-1, dated 5/10]

VOC – 1.13 lb/1000 gal when firing No. 6 fuel oil
0.34 lb/1000 gal when firing No. 2 fuel oil
[AP-42, Table 1.3-3, dated 5/10]

Opacity – 06-096 CMR 101

Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM, PM_{10}	0.12 firing No. 6 Fuel oil 0.08 firing No. 2 Fuel oil	06-096 CMR 103 2(B)(1)(a), BPT
Boiler #2			
Boiler #3			

When firing No. 2 fuel oil, emissions shall not exceed the following for each boiler [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler	0.65	0.65	4.08	1.09	0.27	0.02

When firing No. 6 fuel oil, emissions shall not exceed the following for each boiler [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler	0.98	0.98	4.08	2.99	0.27	0.06

Visible emissions from the combined stack serving Boilers #1, #2, and #3 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period.

PBMC shall be limited to 600,000 gallons/yr of No. 2 fuel oil or 560,000 gallons/yr of No. 6 fuel oil or some combination thereof, not to exceed the equivalent of 84,000 MMBtu/yr heat input. This value is to be calculated based on a heating value of 0.14 MMBtu/gal for No. 2 fuel oil and 0.15 MMBtu/gal for No. 6 fuel oil.

Prior to January 1, 2016, the #2 fuel oil fired in the boilers 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, 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, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 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 12-month rolling total basis. Documentation shall include the type and sulfur content of the fuel used fuel for each boiler.

3. 40 CFR Part 63 Subpart JJJJJJ

Boilers #1, #2, and #3 are existing institutional boilers as defined in 40 CFR §63.11237 that are located at or are part of an area source of hazardous air pollutants (HAP), as defined in §63.2, and 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 JJJJJJ). However, 40 CFR Part 63, Subpart JJJJJJ is currently under reconsideration by the EPA, and the applicability of the Subpart to this source may change, contingent upon the final specifications and requirements of the proposed amendments.

For informational purposes, a summary of the currently promulgated 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, PBMC 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 was due on September 17, 2011. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program – Initial and Regularly Scheduled

(a) A boiler tune-up program shall be implemented to include the tune-up of applicable boilers by March 21, 2012, according to the rule currently in place. [40 CFR Part 63.11196(a)(1)] However, a No Action Assurance letter was issued on March 13, 2012, stating that EPA will exercise its enforcement discretion to not pursue enforcement action for failure to complete the required tune-up by the stated compliance date. The rule is expected to have a future compliance date in either 2013 or 2014 once the final revisions are promulgated.

(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; however, the burner must be inspected at least once every 36 months. [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. [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 (ppm), by volume, and oxygen in volume percent, before and after adjustments are made. [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 one week of start-up. [40 CFR Part 63.11223(b)(7)

(c) A Notification of Compliance Status shall be submitted to EPA no later than 120 days after conducting the initial boiler tune-up. [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 has been submitted.

1. Tune-ups shall be conducted as frequently as specified in the regulation based on the size and age of each boiler. [40 CFR Part 63.11223(a)]
2. The tune-up compliance report shall be maintained onsite and submitted, if requested, to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured 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 type and amount of fuel used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The tune-up 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.

C. Generators #1A and #2A

PBMC operates emergency Generators #1A (500 kW) and #2A (300 kW) rated at maximum heat input capacity of 4.9 MMBtu/hr and 2.1 MMBtu/hr, respectively, that fire diesel fuel with a maximum sulfur content of 0.0015% by weight. Generator #1A was manufactured in 1975 and Generator #2A was manufactured in 1996.

1. BPT Findings

Emission factors from EPA's AP-42 *Compilation of Air Pollutant Emission Factors* vary depending on the size of the generator. Emergency Generator

#1A meets the definition for "large stationary diesel engine," and Emergency Generator #2A meets the definition for "diesel engine." Appropriate factors for each category are the basis for the emission limits, as detailed below. The BPT emission limits for Generators #1A and #2A are based on the following:

Pollutant	Emergency Generator #1A		Emergency Generator #2A	
	Factor	Origin	Factor	Origin
PM, PM_{10}	0.12 lb/MMBtu	06-096 CMR 103	0.31 lb/MMBtu	AP-42, Table 3.3-1 (dated 10/96)
SO_2	0.0015 lb/MMBtu	Fuel sulfur content of 0.0015% by wt.	0.0015 lb/MMBtu	Fuel sulfur content of 0.0015% by wt.
NO_x	3.20 lb/MMBtu	AP-42, Table 3.4-1 (dated 10/96)	4.41 lb/MMBtu	AP-42, Table 3.3-1 (dated 10/96)
CO	0.85 lb/MMBtu		0.95 lb/MMBtu	
VOC	0.09 lb/MMBtu		0.36 lb/MMBtu	
Opacity	06-096 CMR 101 (dated 5/03)			

The BPT emission limits for Emergency Generators #1A and #2A are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1A (4.9 MMBtu/hr) Diesel	0.59	0.59	0.01	15.68	4.17	0.44
Generator #2A (2.1 MMBtu/hr) Diesel	0.65	0.65	0.01	9.26	2.00	0.76

Visible emissions from each of the diesel emergency generators shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period.

The emergency generators shall each be limited to 500 hr/yr of operation based on a 12-month rolling total. A non-resettable hour meter shall be operated on each generator and a written log shall be kept for each generator to document compliance with this limit.

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 generators listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area

HAP source; however, they are considered exempt from the requirements of Subpart ZZZZ because they are institutional emergency engines, per 40 CFR Part 63, Subpart ZZZZ, § 63.6590 (b)(3)(viii).

Emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

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 used to supply power to an electric grid as part of a financial arrangement with an independent system operator (ISO) or another entity.

3. Generators #1A and #2A were manufactured before 2006 and are therefore not subject to 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE).*

D. Generator #3

PBMC operates Generator #3 (500 kW or 755 hp) for emergency back-up power. Generator #3 has a rated input capacity of 4.7 MMBtu/hr firing diesel fuel at a maximum rate of 34.4 gal/hr with a maximum sulfur content of 0.0015% by weight. This generator was manufactured and installed in 2010. The use of this generator complies with the definition of "Emergency Generator" as provided in section II (C)(2) above.

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to Generator #3 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of 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 CFR Part 63, Subpart ZZZZ.

1. BACT/BPT Findings

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

PM, PM_{10} –	0.05 lb/MMBtu, manufacturer's guarantee*
SO_2 –	0.0015 lb/MMBtu, based on firing diesel with maximum sulfur content of 0.0015% by weight (15 ppm)
NO_x –	based on manufacturer's not-to-exceed data of 4.80 g/hp-hr; more stringent than the appropriate AP-42 factor of 3.20 lb/MMBtu
CO –	based on manufacturer's not-to-exceed data of 2.60 g/hp-hr
VOC –	based on manufacturer's not-to-exceed data of 4.80 g/hp-hr
Opacity –	06-096 CMR 101 (dated 5/03)

* 06-096 CMR 103 regulates PM emission limits. However, the manufacturer has certified this generator will not exceed a more stringent emission rate of 0.15 g/hp-hr (0.05 lb/MMBtu). This more stringent emission rate shall be considered BPT. The PM_{10} limits are derived from the PM limits.

The BPT emission limits for Generator #3 are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #3 (4.7 MMBtu/hr) diesel	0.25	0.25	0.01	7.99	4.33	7.99

Visible emissions from Generator #3 shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period.

2. 40 CFR Part 60, Subpart IIII

Emergency Definition:

Emergency stationary internal combustion engine is defined in 40 CFR Part 60, Subpart IIII as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

40 CFR Part 60, Subpart IIII Requirements:

The generator shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

The diesel fuel fired in the generator shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 CFR §60.4207(b)]

A non-resettable hour meter shall be installed and operated on the generator. [40 CFR §60.4209(a)]

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

The generator shall be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). [40 CFR §60.4211(f)]

No initial notification is required for emergency engines. [40 CFR §60.4214(b)]

E. Degreaser #1

Degreaser #1 has a design capacity of 10 gallons, and utilizes NAPA parts cleaner fluid. Degreaser #1 is subject to the record keeping requirements of 06-096 CMR 130 (as amended) and specified in Special Condition (19) in the Order of this license.

F. Annual Emissions

1. Total Licensed Annual Emissions

Annual emissions from the boilers are calculated based on the worst-case scenario of firing 100% No. 6 fuel oil for PM, PM_{10}, SO_2, NOx, and VOC. CO emissions are based on firing 100% No. 2 fuel oil because the emission

factor per 1000 gallons of fuel oil is the same for both oil types, and the fuel use cap is higher for No. 2 fuel oil than No. 6 fuel oil. PBMC is limited to firing 84,000 MMBtu of No. 2 or No. 6 fuel oil on a 12-month rolling total basis.

The following tons/year values for the generators are based on Generators #1A, #2A, and #3 each limited to 500 hours of operation per year firing diesel fuel with a sulfur content not to exceed 0.0015% by weight.

PBMC is limited to the following annual emissions, based on a 12-month rolling total:

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

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers	5.04	5.04	21.00	15.4	1.50	0.32
Generator #1A	0.15	0.15	0.01	3.92	1.04	0.11
Generator #2A	0.16	0.16	0.01	2.32	0.50	0.19
Generator #3	0.06	0.06	0.01	2.00*	1.08	2.00*
Total	**5.41**	**5.41**	**21.03**	**23.64**	**4.12**	**2.62**

* This is a combined NO_x-VOC emission rate, and by applying it individually to NO_x and VOC is an over estimation of actual emissions.

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 (CO_2e).

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, PBMC is below the major source threshold of 100,000 tons of CO_2e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

Based on the total facility licensed emissions, PBMC is below the emissions level required for modeling.

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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-504-71-J-R 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 emission 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, #2, and #3**

A. Fuel

1. PBMC shall be limited to 600,000 gallons/yr of No. 2 fuel oil or 560,000 gallons/yr of No. 6 fuel oil or some combination thereof, not to exceed the equivalent of 84,000 MMBtu/yr heat input. This value is to be calculated based on a heating value of 0.14 MMBtu/gal for No. 2 fuel oil and 0.15 MMBtu/gal for No. 6 fuel oil. [06-096 CMR 115, BPT]
2. Total fuel use for the boilers shall not exceed 84,000 MMBtu of #2 fuel oil or #6 fuel oil with a maximum sulfur content of 0.5%, on a 12-month rolling total basis. [06-096 CMR 115, BPT]
3. Prior to January 1, 2016, the #2 fuel oil fired in the boilers shall be ASTM D396 compliant (maximum sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
4. Beginning January 1, 2016, 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)]
5. Beginning January 1, 2018, 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)]
6. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM, PM_{10}	0.12 firing No. 6 Fuel oil 0.08 firing No. 2 Fuel oil	06-096 CMR 103 2(B)(1)(a), BPT
Boiler #2			
Boiler #3			

When firing No. 2 fuel oil, emissions shall not exceed the following for each boiler [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler	0.65	0.65	4.08	1.09	0.27	0.02

When firing No. 6 fuel oil, emissions shall not exceed the following for each boiler [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler	0.98	0.98	4.08	2.99	0.27	0.06

C. Visible emissions from the combined stack serving Boilers #1, #2, and #3 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

(17) **Emergency Generators #1A and #2A**

A. Emergency Generators #1A and #2A shall each be limited to 500 hr/yr of operation based on a 12-month rolling total. A non-resettable hour meter shall be operated on each generator and a written log shall be kept for each generator to document compliance with this limit. [06-096 CMR 115, BPT]

B. Generators #1A and #2A shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generators #1A and #2A shall not be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]

C. Generators #1A and #2A shall fire diesel fuel with a sulfur limit not to exceed 0.0015% by weight. Compliance shall be based on fuel records from

the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [06-096 CMR 115, BPT]

D. Emissions shall not exceed the following [06-096 CMR 115, 06-096 CMR 103, BPT]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1A (4.9 MMBtu/hr), diesel	0.59	0.59	0.01	15.68	4.17	0.44
Generator #2A (2.1 MMBtu/hr), diesel	0.65	0.65	0.01	9.26	2.00	0.76

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

(18) **Generator #3**

A. Generator #3 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm (0.0015 % by weight). [40 CFR 60.4207(b)]

B. Compliance with the sulfur content limits shall be based on fuel records from the supplier showing the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]

C. Generator #3 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #3 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12-month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BPT]

D. Generator #3 shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]

E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #3	PM	0.05	06-096 CMR 103(2)(B)(1)(a), BACT

F. Emissions shall not exceed the following [06-096 CMR 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 #3 (4.7 MMBtu/hr), diesel	0.25	0.25	0.01	7.99	4.33	7.99

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

H. Generator #3 is subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]

I. PBMC shall operate and maintain Generator #3 in accordance with the manufacturer's written instructions. PBMC shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]

(19) **Parts Washer: Degreaser #1**

Degreaser #1 at PBMC is subject to 06-096 CMR 130.

A. PBMC shall keep records of the amount of solvent added to the parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
   1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under 06-096 CMR 130.
   1. PBMC shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      (i) Waste solvent shall be collected and stored in closed containers.
      (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be

performed only within the freeboard area of the cold cleaning machine.

(iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.

(v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.

(vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.

(vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.

(viii) Work area fans shall not blow across the opening of the degreaser unit.

(ix) The solvent level shall not exceed the fill line.

2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130, BPT]

(20) PBMC 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 (Title 38 MRSA §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 1st DAY OF May , 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie Loyzim for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 9/22/2011
Date of application acceptance: 10/12/2011

Date filed with the Board of Environmental Protection:

This Order prepared by Jane Gilbert, Bureau of Air Quality