STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

President and Trustees of Bates College **Androscoggin County** **Lewiston, Maine** **A-373-71-O-R/M**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Renewal with Amendment**

FINDINGS OF FACT

After review of the air emission license renewal 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

The President and Trustees of Bates College (Bates) has applied to renew their Air Emission License for the operation of emission sources associated with their educational facility.

The equipment addressed in this license is located on the Bates College campus in Lewiston, Maine.

In addition to renewing their Air Emission License, Bates has requested the following changes be incorporated into the renewal:

1. Renaming the Campus Ave boilers to the Kalparis Boilers;
2. Removing the Chase Hall Boiler;
3. Updating the capacity information of the Rzasa Boilers; and
4. Updating the stack designations for several boilers.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Cutten Boiler #1	29.4	210 gal/hr	Distillate fuel, RFO, LR100	1995	1995	Cutten
		29,000 scf/hr	Natural gas			
Cutten Boiler #2	29.4	210 gal/hr	Distillate fuel, RFO, LR100	1995	1995	
		29,000 scf/hr	Natural gas			
Cutten Boiler #3	29.4	210 gal/hr	Distillate fuel, RFO, LR100	1995	1995	
		29,000 scf/hr	Natural gas			
Bonney Boiler #1	4.0	4,000 scf/hr	Natural gas	2020	2020	Bonney 1
Bonney Boiler #2	4.0	4,000 scf/hr	Natural gas	2020	2020	Bonney 2
Bonney Boiler #3	4.0	4,000 scf/hr	Natural gas	2020	2020	Bonney 3
Kalparis Boiler #1	1.0	980 scf/hr	Natural gas	2014	2015	Kalparis
Kalparis Boiler #2	1.0	980 scf/hr	Natural gas	2014	2015	
Ladd Boiler	1.5	1,471 scf/hr	Natural gas	2009	2009	Ladd
Merrill Boiler	1.2	1,176 scf/hr	Natural gas	2008	2008	Merrill
Parker Boiler	1.0	890 scf/hr	Natural gas	2019	2019	Parker
Pettengill Boiler #1	1.1	1,078 scf/hr	Natural gas	2009	2009	Pettengill 1
Pettengill Boiler #2	1.1	1,078 scf/hr	Natural gas	2009	2009	Pettengill 2
Rzasa Boiler #1	2.2	15.6 gal/hr	Distillate fuel	1993	1993	Rzasa 1
		2,177 scf/hr	Natural gas			
Rzasa Boiler #2	2.2	15.6 gal/hr	Distillate fuel	1993	1993	Rzasa 2
		2,177 scf/hr	Natural gas			
Rzasa Boiler #3	2.2	15.6 gal/hr	Distillate fuel	1993	1993	Rzasa 3
		2,177 scf/hr	Natural gas			
Smith Boiler	1.0	980 scf/hr	Natural gas	2016	2016	Smith
Underhill Furnace #1	2.5	2,500 scf/hr	Natural gas	1994	1994	Underhill 1
Underhill Furnace #2	2.5	2,500 scf/hr	Natural gas	1994	1994	Underhill 2
*Chase Hall Boiler **	*3.8*	*3,650 scf/hr*	*Natural gas*	*1990*	*1990*	*N/A*

* This boiler has been removed from the facility.

Bates also has several small boilers, water heaters, and unit heaters not listed in the table above. These are considered insignificant emissions units because they are each rated below 1.0 MMBtu/hr, the heat input capacity level at or above which would require their

inclusion in the license; therefore, these small boilers, water heaters, and unit heaters are not addressed further in this license.

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1 (Cutten)	2.6	250	Distillate fuel	19.0	1995	1995
Generator #2 (Benjamin Mays)	1.1	100	Distillate fuel	8.3	1993	1993
Generator #3 (Pettengill)	3.0	265	Distillate fuel	21.9	1999	1999
Generator #4 (280 College)	1.4	125	Distillate fuel	10.4	2007	2007
Generator #5 (New Commons)	3.4	300	Distillate fuel	24.9	2007	2008
Generator #6 * (Carnegie)	1.1	100	Natural gas	1,118	2008	2012
Generator #7 (Kalparis)	3.0	250	Natural gas	2,983	2015	2015
Generator #8 (Bonney)	7.3	500	Natural gas	7,158	2020	2020

* The specifications of this generator have been updated to reflect the installed equipment.

Bates may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.
http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf

Additionally, Bates may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

Storage Tanks

	Capacity (Gallons)	Product Stored	Roof Type	Date of Install.
Tank #1	2,000	Gasoline	Fixed	2016
Tank #2	20,000	RFO/LR100	Fixed	2016

C. Definitions

Distillate Fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

LR100 means a reprocessed cooking oil which also has similar characteristics to distillate fuel.

Records or *Logs* mean either hardcopy or electronic records.

Renewable fuel oil (RFO) means a cellulosic heating oil derived from wood, in which the wood is gasified and then condensed back to a liquid fuel that can be burned, similar to distillate fuel. RFO shall meet the specifications of ASTM D7544 as documented by the supplier.

D. Application Classification

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

The application for Bates 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 with a minor revision to include the changes identified in Section I.A. of this license and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

E. Facility Classification

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

- As a synthetic minor source of air emissions for criteria pollutants, because Bates is subject to license restrictions that keep facility emissions below major source thresholds for NO_x; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

BPT for 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. Heating Equipment

The boilers and unit heaters listed in the emissions equipment section above are used to heat the buildings throughout the Bates College campus. Cutten Boilers #1, #2, and #3 are centrally located at the Cutten Steam Plant and supply steam to a distribution system which supplies heat to various buildings throughout the campus. The remaining boilers and unit heaters are installed at the locations of heating demand.

1. Fuel Firing Capability

Cutten Boilers #1, #2, and #3 are centrally located at the Cutten Steam Plant and supply steam to a distribution system which supplies heat to various buildings throughout the campus. They are equipped with Low NO_x burners and flue gas recirculation for control of NO_x and can fire natural gas, distillate fuel, renewable fuel oil (RFO), and LR100. All three Cutten Boilers vent through a common stack.

Rzasa Boilers #1, #2, and #3 have the ability to fire both natural gas and distillate fuel.

All remaining units (Bonney Boilers #1, #2, and #3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, and Underhill Furnaces #1 and #2) fire natural gas exclusively.

Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 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, the distillate fuel purchased or otherwise obtained for use in Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3 shall not exceed 0.0015% by weight (15 ppm). While LR100 does meet the requirement to have a maximum sulfur content of 0.0015% to match the requirement of distillate fuel, RFO has a maximum fuel sulfur content of 0.05% and is not required to meet the lower sulfur content limit.

2. BPT Findings

   a. The BPT emission limits for Cutten Boilers #1, #2, and #3 were based on the following:

      Distillate Fuel/RFO/LR100

$PM/PM_{10}/PM_{2.5}$	–	0.03 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
SO_2	–	based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight for distillate and LR100, and 0.05% for RFO
NO_x	–	0.2 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
CO	–	0.07 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
VOC	–	0.03 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

      Natural Gas

$PM/PM_{10}/PM_{2.5}$	–	0.01 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
SO_2	–	0.01 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
NO_x	–	0.07 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
CO	–	0.15 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
VOC	–	0.02 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

   b. The BPT emission limits for all remaining heating appliances (Bonney Boilers #1, #2, and #3; Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Rzasa Boilers #1, #2, and #3, Smith Boiler, and Underhill Furnaces #1 and #2) were based on the following:

Distillate Fuel

$PM/PM_{10}/PM_{2.5}$	–	0.12 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
SO_2	–	based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
NO_x	–	0.36 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
CO	–	5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
VOC	–	0.34 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

Natural Gas

$PM/PM_{10}/PM_{2.5}$	–	0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
SO_2	–	0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
NO_x	–	100 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
CO	–	84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98
VOC	–	5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

c. The BPT emission limits for the boilers and furnaces are the following:

Unit	Fuel	Pollutant	lb/MMBtu
Cutten Boiler #1	Distillate fuel	PM	0.03
	Natural gas		0.01
Cutten Boiler #2	Distillate fuel	PM	0.03
	Natural gas		0.01
Cutten Boiler #3	Distillate fuel	PM	0.03
	Natural gas		0.01
Bonney Boiler #1	Natural gas	PM	0.05
Bonney Boiler #2	Natural gas	PM	0.05
Bonney Boiler #3	Natural gas	PM	0.05

Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Cutten Boiler #1	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89
Cutten Boiler #2	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89

Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Cutten Boiler #3	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89
Bonney Boiler #1	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Bonney Boiler #2	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Bonney Boiler #3	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Kalparis Boiler #1	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Kalparis Boiler #2	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Ladd Boiler	Natural gas	0.08	0.08	0.08	0.01	0.15	0.13	0.01
Merrill Boiler	Natural gas	0.06	0.06	0.06	0.01	0.12	0.10	0.01
Parker Boiler	Natural gas	0.05	0.05	0.05	0.01	0.09	0.08	0.01
Pettengill Boiler #1	Natural gas	0.06	0.06	0.06	0.01	0.11	0.10	0.01
Pettengill Boiler #2	Natural gas	0.06	0.06	0.06	0.01	0.11	0.10	0.01
Smith Boiler	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Underhill Furnace #1	Natural gas	0.13	0.13	0.13	0.01	0.25	0.21	0.02
Underhill Furnace #2	Natural gas	0.13	0.13	0.13	0.01	0.25	0.21	0.02
Rzasa Boiler #1	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02
Rzasa Boiler #2	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02
Rzasa Boiler #3	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02

d. The fuel fired in boilers Cutten #1, #2 and #3 combined shall be limited to 140,000 MMBtu/year, based on a 12-month rolling total basis.

The fuel fired in all other heating equipment combined shall be limited to 90,000 MMBtu/year based on a 12-month rolling total basis.

3. Visible Emissions

a. Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3

Visible emissions from any stack venting Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3 shall not exceed 20% opacity on a six-minute block average basis when any unit that vents through that stack is firing distillate fuel, RFO, or LR100. At all other times, visible emissions from any stack venting Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3 shall not exceed 10% opacity on a six-minute block average basis.

b. All Other Boilers and Furnaces: Bonney Boilers #1, #2, and #3; Kalparis Boilers #1 and #2; Ladd Boiler; Merrill Boiler; Parker Boiler; Pettengill Boilers #1 and #2; Smith Boiler, and Underhill Furnaces #1 and #2

Visible emissions from all other boilers and furnaces (listed above) shall each not exceed 10% opacity on a six-minute block average basis.

4. Periodic Monitoring

Periodic monitoring for all fuel burning heating equipment shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

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

Due to both size and year of manufacture, Cutten Boilers #1, #2, and #3 are subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

Bates shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Cutten Boilers #1, #2, and #3 including, but not limited to, the following:

a. Standards
The fuel fired in Cutten Boilers #1, #2, and #3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit shall be streamlined to the lower limit of 0.0015% sulfur by weight for distillate and LR100 and 0.05% for RFO required by State statute.

b. Reporting and Recordkeeping
(1) Bates shall maintain records of the amounts of each fuel combusted in Cutten Boilers #1, #2, and #3 during each month with fuel certifications. [40 C.F.R. § 60.48c(g)]
(2) Bates shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:

(i) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
(ii) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
(iii) Any instances of excess emissions (including opacity) from Cutten Boilers #1, #2, and #3. [40 C.F.R. § 60.48c(c)]

(3) The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]

(4) The following address for EPA shall be used for any reports or notifications required to be copied to them:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

(5) Bates shall maintain records required by Subpart Dc for a period of two years following the date of the record. [40 C.F.R. § 60.48c(i)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the two-year record retention requirement of Subpart Dc shall be streamlined to the more stringent six-year requirement.

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

Cutten Boilers #1, #2, and #3 and Rzasa Boilers #1, #2, and #3 are 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 JJJJJJ. The units are considered existing oil boilers. [40 C.F.R. §§ 63.11193 and 63.11195]

All remaining natural gas fired heating equipment are not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ as the units are classifies as gas-fired boilers and are therefore exempt. [40 C.F.R. § 63.11237]

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

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]
(ii) Tune-ups shall be conducted 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**
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up (Cutten Boilers #1, #2, and #3)	Every 5 years

Boiler Category	Tune-Up Frequency
Oil fired boilers with a heat input capacity of ≤ 5MMBtu/hr. (Rzasa Boilers #1, #2, and #3)	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

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

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. 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 less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

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

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

(2) Compliance Report

A compliance report shall be prepared by March 1st every five years for Cutten Boilers #1, #2, and #3, and Rzasa Boilers #1, #2, and #3 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)]

(i) Company name and address;

(ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;

(iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

(iv) The following certifications, as applicable:

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

b. Recordkeeping

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

(i) Copies of notifications and reports with supporting compliance documentation;
(ii) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
(iii) Records of the occurrence and duration of each malfunction of each applicable boiler; and
(iv) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

(2) Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJJ shall be streamlined to the more stringent six-year requirement.

C. Generators

Bates operates eight generators: Generator #1 (Cutten), Generator #2 (Benjamin Mays), Generator #3 (Pettengill), Generator #4 (280 College), Generator #5 (New Commons), Generator #6 (Carnegie), Generator #7 (Kalparis), and Generator #8 (Bonney). The generators are generator sets with each gen set consisting of an engine and an electrical generator. The specifications of the generators are detailed in the Emissions Equipment section above.

Generators #1, #3, #6, #7, and #8 are emergency generators and operated as such.

Generators #2, #4, and #5 participate in a demand response program which requires that the engines are operated for non-emergency purposes. Total operating time of Generators #2, #4, and #5 is limited to 160 hours per year each, inclusive of emergency operating time.

1. BPT Findings

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

Distillate Fuel (Generators #1, #2, #3, #4, and #5)

$PM/PM_{10}/PM_{2.5}$	–	0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BPT
SO_2	–	Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO_x	–	4.41 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
CO	–	0.95 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
VOC	–	0.36 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

Natural Gas (Generators #6, #7, and #8)

$PM/PM_{10}/PM_{2.5}$	–	0.05 lb/MMBtu from 06-096 C.M.R. ch. 115, BPT
SO_2	–	0.000588 lb/MMBtu from AP-42, Table 3.2-2 dated 7/00
NO_x	–	4.08 lb/MMBtu from AP-42, Table 3.2-2 dated 7/00
CO	–	0.317 lb/MMBtu from AP-42, Table 3.2-2 dated 7/00
VOC	–	0.118 lb/MMBtu from AP-42, Table 3.2-2 dated 7/00
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the generators are the following:

Unit	Pollutant	lb/MMBtu
Generator #3 (Pettengill)	PM	0.12
Generator #5 (New Commons)	PM	0.12
Generator #8 (Bonney)	PM	0.05

Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1 (Cutten)	Distillate fuel	0.32	0.32	0.32	0.01	11.47	2.47	0.94
Generator #2 (Benjamin Mays)	Distillate fuel	0.14	0.14	0.14	0.01	4.86	1.05	0.40
Generator #3 (Pettengill)	Distillate fuel	0.36	0.36	0.36	0.01	13.23	2.85	1.08
Generator #4 (280 College)	Distillate fuel	0.17	0.17	0.17	0.01	6.18	1.33	0.51
Generator #5 (New Commons)	Distillate fuel	0.41	0.41	0.41	0.01	15.00	3.23	1.23
Generator #6 (Carnegie)	Natural gas	0.06	0.06	0.06	0.01	4.49	0.35	0.13

Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #7 (Kalperis)	Natural gas	0.15	0.15	0.15	0.01	12.24	0.96	0.36
Generator #8 (Bonney)	Natural gas	0.37	0.37	0.37	0.01	29.79	2.32	0.87

Visible emissions from Generators #1-#5 shall each not exceed 20% opacity on a six-minute block average basis. During periods of startup, these units must meet the normal operating visible emissions standard or may elect to comply with the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

(a) The duration of the startup shall not exceed 30 minutes per event;
(b) Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
(c) Records shall be maintained documenting the date, time, and duration of each event during which the work practice standards and alternate emission standard are used in lieu of the normal operation visible emissions standard.

Visible emissions from Generators #6, #7, and #8 shall each not exceed 10% opacity on a six-minute block average basis.

The Department has determined that the proposed BPT visible emission limit for Generators #6-#8 are more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for each generator has been streamlined to the more stringent BPT limit, and only this more stringent limit shall be included in the air emission license.

Generators #1 and #3 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 of Generators #1 - #8 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limits, Bates shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Generators #1 and #3 are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or

frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity. Generators #6, #7, and #8 are subject to similar requirements under 40 C.F.R. Part 60, Subpart JJJJ, which are detailed below.

2. Chapter 169

   Generators #1-#8 were installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and are therefore exempt from this rule pursuant to Section 1.

3. New Source Performance Standards for Distillate Fuel Fired Engines (Generators #1 - #5)

   Generators #1-#3
   Due to the dates of manufacture of the compression ignition engines, Generators #1-#3 are not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE),* 40 C.F.R. Part 60, Subpart IIII since the units were manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

   Generators #4 and #5
   Federal regulation 40 C.F.R. Part 60, Subpart IIII is applicable to the Generators #4 and #5 since the units were ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the units also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

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

   a. Manufacturer Certification Requirement
      The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]
   b. Ultra-Low Sulfur Fuel Requirement
      The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]
   c. Non-Resettable Hour Meter Requirement
      A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]
   d. Operation and Maintenance Requirements
      The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. Bates may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

Bates shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

4. New Source Performance Standards for Natural Gas Fired Engines (Generators #6, #7, and #8)

Federal regulation 40 C.F.R. Part 60, Subpart JJJJ is not applicable to Generator #6 because although the unit was ordered after June 12, 2006, it was manufactured before January 1, 2009. [40 C.F.R. § 60.4230]

Federal regulation 40 C.F.R. Part 60, Subpart JJJJ is applicable to Generators #7, and #8 since the units were ordered after June 12, 2006, and manufactured after January 1, 2009. [40 C.F.R. § 60.4230] By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ, the units also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

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

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart JJJJ, a stationary reciprocating internal combustion engine (ICE) is considered an emergency stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart JJJJ, resulting in the engine being subject to requirements applicable to non-emergency engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;

- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4243(d) and 60.4248]

b. 40 C.F.R. Part 60, Subpart JJJJ Requirements

(1) Manufacturer Certification Requirement
The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233]

(2) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4237]

(3) Operation and Maintenance Requirement

The engines shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Bates that are approved by the engine manufacturer. Bates may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

Bates shall have available for review by the Department a copy of the manufacturer's written instructions or procedures developed by Bates that are approved by the engine manufacturer for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(4) Annual Time Limit for Maintenance and Testing
As emergency engines, the units shall each be limited to 100 hours/year for maintenance and testing. The emergency engines may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours total allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 C.F.R. § 60.4243(d)]

(5) Recordkeeping
Bates shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4245(b)]

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

<u>Generators #1, #3, and #6</u>
National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to Generators #1 and #3. 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 40 C.F.R. Part 63, Subpart ZZZZ since they are categorized as institutional emergency engines <u>and</u> they do not operate or are not contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

Operation of any emergency engine in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified

in 40 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements.

Generators #4 and #5
By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII addressed previously in this license, these units also meet the requirements of Subpart ZZZZ.

Generators #7, and #8
By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ addressed previously in this license, these units also meet the requirements of Subpart ZZZZ.

Generator #2
40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generator #2. The unit is considered existing, stationary reciprocating internal combustion engine at an area HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements. Additionally, Generator #2 participates in a demand response program. [40 C.F.R. § 63.6585]

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

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

	Operating Limitations
Compression ignition (distillate fuel) unit: **Generator # 2**	- Change oil and filter every 1000 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions, or Bates shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

b. Optional Oil Analysis Program
Bates has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Bates must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]

c. Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on the engine.
[40 C.F.R. § 63.6625(f)]

d. Startup Idle and Startup Time Minimization Requirements
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

e. Recordkeeping
Bates shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

D. Storage Tanks

Bates operates two fuel storage tanks at their facility. Tank #1 is a 2,000-gallon gasoline storage tank used for dispensing fuel for vehicles and insignificant equipment used in and around the facility. Tank #2 is a 20,000-gallon fuel oil storage tank used to hold either RFO or LR100 for use in Cutten Boilers #1, #2, and #3.

Gasoline Dispensing Facilities Vapor Control, 06-096 C.M.R. ch. 118 is not applicable to Tank #2 as the tank is not used as a gasoline dispensing facility. Tank #1 is used as a gasoline dispensing facility; however, the monthly throughput of gasoline falls below the minimum applicability threshold of 10,000 gallons per month. However, per 06-096 C.M.R. ch. 118 (1)(B)(1), any gasoline dispensing facility regardless of its monthly throughput is subject to the following requirements:

1. Tank #1 shall have a submerged fill pipe that extends to within 6 inches from the bottom of the tank.
2. Bates shall maintain records of gasoline throughput which will allow the monthly and annual throughput to be determined. If the monthly throughput exceeds the 10,000-gallon minimum applicability threshold, Bates shall notify the Department of the change in applicability within thirty (30) days.

Control of Petroleum Storage Facilities, 06-096 C.M.R. ch. 171 is not applicable to Tanks #1 and #2 because both tanks are below the minimum applicability threshold of 39,000 gallons and Bates is not a petroleum storage facility.

Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 C.F.R. Part 60, Subpart Kb, is not applicable to Tank #1 because it is below the minimum volume of 75 cubic meters. Tank #2 is not subject to Subpart Kb per § 60.110b(b) as the materials stored in this tank have maximum true vapor pressures below 15.0 kPa.

E. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

F. Fugitive Emissions

Bates shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

Bates shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

G. Emission Statements

Bates is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. Bates shall maintain the following records in order to comply with this rule:

1. The amount and type of fuel fired in Cutten Boilers #1, #2, and #3 on a monthly basis;
2. The amount and type of fuel fired in Bonney Boilers #1-#3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, Underhill Furnaces #1 and #2, and Rzasa Boilers #1-#3 on a monthly basis;
3. The sulfur content of the distillate fuel fired in all licensed equipment;
4. The amount and type of fuel fired in all licensed generators;
5. The sulfur content of each delivery of LR100; and
6. Hours each generator was active or operating on a monthly basis.

In reporting year 2023 and every third year thereafter, Bates shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. Bates shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

H. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Firing 140,000 MMBtu/yr of fuel in Cutten Boilers #1, #2, and #3;
- Firing 90,000 MMBtu/yr of fuel in all other heating equipment addressed in this license;
- Operating Generators #2, #4, and #5 for 160 hrs/yr each; and
- Operating Generators #1, #3, #6, #7, and #8 for 100 hrs/yr each.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC
Emergency Engines *Generators #1, #3, #6, #7, and #8*	0.1	0.1	0.1	0.1	3.6	0.5	0.2
Non-Emergency Engines *Generators #2, #4, and #5*	0.1	0.1	0.1	0.1	2.1	0.5	0.2
Cutten Steam Plant Boilers *Cutten Boilers #1, #2, and #3*	2.1	2.1	2.1	3.5	14.0	10.5	2.1
All Other Heating Equipment *Bonney Boilers #1, #2, and #3; Kalparis Boilers #1 and #2; Ladd Boiler; Merrill Boiler; Parker Boiler; Pettengill Boilers #1 and #2; Rzasa Boilers #1, #2, and #3; Smith Boiler, and Underhill Furnaces #1 and #2*	5.4	5.4	5.4	0.1	16.2	3.9	0.3
Total TPY	**7.7**	**7.7**	**7.7**	**3.8**	**35.9**	**15.4**	**2.8**

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM_{10}	25
$PM_{2.5}$	15
SO_2	50
NO_x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

This determination is based on information provided by the applicant regarding licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require Bates to submit additional information and may require an ambient air quality impact analysis at that time.

ORDER

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

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

The Department hereby grants Air Emission License A-373-71-O-R/M subject to the following conditions.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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. § 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 C.M.R. ch. 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated

noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
[06-096 C.M.R. ch. 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
[06-096 C.M.R. ch. 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and

representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]

(16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Cutten Boilers #1, #2, and #3**

A. Fuel

1. Cutten Boilers #1, #2, and #3 are licensed to fire natural gas, distillate fuel, RFO, and LR100. [06-096 C.M.R. ch. 115, BPT]

2. Total fuel use for Cutten Boilers #1, #2, and #3 combined shall not exceed 140,000 MMBtu/yr of fuel, based on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

3. RFO shall meet the specifications of ASTM D7544 as documented by the supplier. [06-096 C.M.R. ch. 115, BPT]

4. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Cutten Boilers #1, #2, and #3. [06-096 C.M.R. ch. 115, BPT]

5. Compliance with the distillate fuel, RFO, and LR100 sulfur limitations shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content compliance shall be demonstrated by fuel supplier certification. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Fuel	Pollutant	lb/MMBtu	Origin and Authority
Cutten Boiler #1	Distillate fuel	PM	0.03	06-096 C.M.R. ch. 115, BPT
	Natural gas		0.01	06-096 C.M.R. ch. 115, BPT
Cutten Boiler #2	Distillate fuel	PM	0.03	06-096 C.M.R. ch. 115, BPT
	Natural gas		0.01	06-096 C.M.R. ch. 115, BPT
Cutten Boiler #3	Distillate fuel	PM	0.03	06-096 C.M.R. ch. 115, BPT
	Natural gas		0.01	06-096 C.M.R. ch. 115, BPT

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

Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Cutten Boiler #1	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89
Cutten Boiler #2	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89
Cutten Boiler #3	Distillate fuel/ LR100	0.89	0.89	0.89	0.05	5.88	2.06	0.89
	Natural gas	0.30	0.30	0.30	0.30	2.06	4.41	0.59
	RFO	0.89	0.89	0.89	1.47	5.88	2.06	0.89

D. Visible emissions from the stack venting Cutten Boilers #1, #2, and #3 shall not exceed 20% opacity on a six-minute block average basis when any unit that vents through that stack is firing distillate fuel, RFO, or LR100. At all other times, visible emissions from the stack venting Cutten Boilers #1, #2, and #3 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

E. Bates shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Cutten Boilers #1, #2, and #3 including, but not limited to, the following:

1. Bates shall maintain records of the amounts of each fuel combusted during each month with fuel certifications. [40 C.F.R. § 60.48c(g)]

2. Bates shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:

   a. Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
   b. Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
   c. Any instances of excess emissions (including opacity) from Cutten Boilers #1, #2, and #3. [40 C.F.R. § 60.48c(c)]

3. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]

4. The following address for EPA shall be used for any reports or notifications required to be copied to them:

   U.S. Environmental Protection Agency, Region I
   5 Post Office Square, Suite 100 (OES04-2)
   Boston, MA 02109-3912
   Attn: Air Compliance Clerk

(18) **Other Boilers: Bonney Boilers #1, #2, and #3; Kalparis Boilers #1 and #2; Ladd Boiler; Merrill Boiler; Parker Boiler; Pettengill Boilers #1 and #2; Rzasa Boilers #1, #2, and #3; Smith Boiler; and Underhill Furnaces #1 and #2**

A. Fuel

1. Total fuel use for Bonney Boilers #1-#3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, Underhill Furnaces #1 and #2, and Rzasa Boilers #1-#3 combined shall not exceed 90,000 MMBtu/yr of fuel, based on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

2. Bonney Boilers #1-#3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, and Underhill Furnaces #1 and #2 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BPT]

3. Rzasa Boilers #1, #2, and #3 are licensed to fire natural gas and distillate fuel. [06-096 C.M.R. ch. 115, BPT]

4. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Rzasa Boilers #1, #2, and #3. [06-096 C.M.R. ch. 115, BPT]

5. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, a statement from the supplier that the fuel delivered meets Maine's fuel sulfur content standards, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Bonney Boiler #1	PM	0.05	06-096 C.M.R. ch. 115, BPT
Bonney Boiler #2	PM	0.05	06-096 C.M.R. ch. 115, BPT
Bonney Boiler #3	PM	0.05	06-096 C.M.R. ch. 115, BPT

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

Emission Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Bonney Boiler #1	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Bonney Boiler #2	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Bonney Boiler #3	Natural gas	0.20	0.20	0.20	0.01	0.40	0.34	0.03
Kalparis Boiler #1	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Kalparis Boiler #2	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Ladd Boiler	Natural gas	0.08	0.08	0.08	0.01	0.15	0.13	0.01
Merrill Boiler	Natural gas	0.06	0.06	0.06	0.01	0.12	0.10	0.01
Parker Boiler	Natural gas	0.05	0.05	0.05	0.01	0.09	0.08	0.01
Pettengill Boiler #1	Natural gas	0.06	0.06	0.06	0.01	0.11	0.10	0.01
Pettengill Boiler #2	Natural gas	0.06	0.06	0.06	0.01	0.11	0.10	0.01
Smith Boiler	Natural gas	0.05	0.05	0.05	0.01	0.10	0.09	0.01
Underhill Furnace #1	Natural gas	0.13	0.13	0.13	0.01	0.25	0.21	0.02
Underhill Furnace #2	Natural gas	0.13	0.13	0.13	0.01	0.25	0.21	0.02
Rzasa Boiler #1	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01

Emission Unit	Fuel	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02
Rzasa Boiler #2	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02
Rzasa Boiler #3	Distillate fuel	0.27	0.27	0.27	0.01	0.80	0.08	0.01
	Natural gas	0.11	0.11	0.11	0.01	0.22	0.19	0.02

D. Visible Emissions

1. Rzasa Boilers #1, #2, and #3

Visible emissions from the stack through which Rzasa Boilers #1, #2, and #3 exhaust shall not exceed 20% opacity on a six-minute block average basis when any of the three units is firing distillate fuel. At all other times, visible emissions from the Rzasa Boilers' stack shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

2. All Other Boilers and Furnaces: Bonney Boilers #1, #2, and #3; Kalparis Boilers #1 and #2; Ladd Boiler; Merrill Boiler; Parker Boiler; Pettengill Boilers #1 and #2; Smith Boiler, and Underhill Furnaces #1 and #2

Visible emissions from Bonney Boilers #1-#3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, and Underhill Furnaces #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(19) Bates shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Cutten Boilers #1, #2, and #3, and Rzasa Boilers #1, #2, and #3 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

A. 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
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up **Cutten Boilers #1, #2, and #3**	Every 5 years
Oil fired boilers with a heat input capacity of ≤5MMBtu/hr. **Rzasa Boilers #1, #2, and #3**	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, not to exceed 36 months from the previous inspection. 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 less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use 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, not to exceed 36 months from the previous inspection. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [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 submitted to the Department and EPA upon request. The report shall contain the following information:
   a. 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;
   b. A description of any corrective actions taken as part of the tune-up of the boiler; and
   c. 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)]

B. Compliance Report

A compliance report shall be prepared by March 1st every five years for Cutten Boilers #1, #2, and #3, and Rzasa Boilers #1, #2, and #3 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."

C. Recordkeeping

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

    a. Copies of notifications and reports with supporting compliance documentation;
    b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
    c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
    d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

2. Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action.

Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJJ shall be streamlined to the more stringent six-year requirement.

(20) **Non-Emergency Generators: Generators #2, #4, and #5**

A. Generators #2, #4, and #5 shall be limited to 160 hours of operation per calendar year. [06-096 C.M.R. ch. 115, BPT]

B. The distillate fuel sulfur content for Generators #2, #4, and #5 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

C. Bates shall keep records of all maintenance conducted on the engines associated with Generators #2, #4, and #5. [06-096 C.M.R. ch. 115, BPT]

D. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #5	PM	0.12	06-096 C.M.R. ch. 115, BPT

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #2	0.14	0.14	0.14	0.01	4.86	1.05	0.40
Generator #4	0.17	0.17	0.17	0.01	6.18	1.33	0.51
Generator #5	0.41	0.41	0.41	0.01	15.00	3.23	1.23

F. Visible Emissions

Visible emissions from Generators #2, #4, and #5 shall each not exceed 20% opacity on a six-minute block average basis. During periods of startup, these units must meet the normal operating visible emissions standard or may elect to comply with the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

1. The duration of the startup shall not exceed 30 minutes per event;

2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and

3. Records shall be maintained documenting the date, time, and duration of each event during which the work practice standards and alternate emission standard are used in lieu of the normal operation visible emissions standard.

[06-096 C.M.R. ch. 115, BPT)]

G. Generator #2 shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. Bates shall meet the following operational limitations for Generator #2:

   a. Change the oil and filter every 1000 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   Records shall be maintained documenting compliance with the operational limitations.

   [40 C.F.R. § 63.6603(a) and Table 2(d); and 06-096 C.M.R. ch. 115, BPT]

2. Oil Analysis Program Option
   Bates has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Bates must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R. § 63.6625(i)]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]

4. Operation and Maintenance
   Generator #2 shall be operated and maintained according to the manufacturer's emission-related written instructions, or Bates shall develop a maintenance plan

which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

Bates shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

5. Startup Idle and Startup Time Minimization
During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

H. Generators #4, and #5 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]

1. Manufacturer Certification
The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel
The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BPT]

3. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]

4. Operation and Maintenance
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. Bates may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

Bates shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(21) **Emergency Generators: Generators #1, #3, #6, #7, and #8**

A. Generators #1, #3, #6, #7, and #8 shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]

B. Bates shall keep records that include maintenance conducted on Generators #1, #3, and #6 and the hours of operation of Generators #1, #3, and #6 recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #3	PM	0.12	06-096 C.M.R. ch. 115, BPT
Generator #8	PM	0.05	06-096 C.M.R. ch. 115, BPT

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.32	0.32	0.32	0.01	11.47	2.47	0.94
Generator #3	0.36	0.36	0.36	0.01	13.23	2.85	1.08
Generator #6	0.06	0.06	0.06	0.01	4.49	0.35	0.13
Generator #7	0.15	0.15	0.15	0.01	12.24	0.96	0.36
Generator #8	0.37	0.37	0.37	0.01	29.79	2.32	0.87

E. Visible Emissions

Visible emissions from Generators #1 and #3 shall each not exceed 20% opacity on a six-minute block average basis. During periods of startup, these units must meet the normal operating visible emissions standard or may elect to comply with the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

1. The duration of the startup shall not exceed 30 minutes per event;

2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and

3. Records shall be maintained documenting the date, time, and duration of each event during which the work practice standards and alternate emission standard are used in lieu of the normal operation visible emissions standard.

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

Visible emissions from Generators #6, #7, and #8 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

F. Generators #7, and #8 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]

1. Manufacturer Certification
   The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1.

2. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BPT]

3. Annual Time Limit for Maintenance and Testing

   a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). The limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4243(d) and 06-096 C.M.R. ch. 115, BPT]
   b. Bates shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4245(b)]

4. Operation and Maintenance
   Each engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Bates that are approved by the engine manufacturer. Bates may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

Bates shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(22) **Storage Tanks**

A. Tank #1 shall have a submerged fill pipe that extends to within 6 inches from the bottom of the tank. [06-096 C.M.R. ch. 118(4)(A)]

B. Bates shall maintain records of gasoline throughput which will allow the monthly and annual throughput to be determined. If the monthly throughput exceeds the 10,000-gallon minimum applicability threshold, Bates shall notify the Department of the change in applicability within 30 days. [06-096 C.M.R. ch. 118(10)(B)]

(23) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(24) **Fugitive Emissions**

1. Bates shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, 4(C) for a list of potential reasonable precautions.

2. Bates shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(25) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Bates shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

B. Bates shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount and type of fuel fired in Cutten Boilers #1, #2, and #3 on a monthly basis;
2. The amount and type of fuel fired in Bonney Boilers #1-#3, Kalparis Boilers #1 and #2, Ladd Boiler, Merrill Boiler, Parker Boiler, Pettengill Boilers #1 and #2, Smith Boiler, Underhill Furnaces #1 and #2, and Rzasa Boilers #1-#3 on a monthly basis;
3. The sulfur content of the distillate fuel fired in all licensed equipment;
4. The amount and type of fuel fired in all licensed generators;
5. The sulfur content of each delivery of LR100; and
6. Hours each generator was active or operating on a monthly basis.

[06-096 C.M.R. ch. 137]

C. In reporting year 2023 and every third year thereafter, Bates shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Bates shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(26) If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, Bates may be required to submit additional information. Upon written request from the Department, Bates shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter.
[06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 18th DAY OF JANUARY, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/5/23
Date of application acceptance: 5/15/23

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

FILED

JAN 18, 2024

State of Maine
Board of Environmental Protection