



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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**Brooklawn Memorial Park
Cumberland County
Portland, Maine
A-48-71-K-R**

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

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 Annotated (M.R.S.A.), Section 344 and Section 590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Brooklawn Memorial Park (Brooklawn) has applied to renew their Air Emission License permitting the operation of four Class IV-A crematory incinerators. The equipment addressed in this license is located at 2002 Congress Street, Portland, Maine.

B. Emission Equipment

A. Incinerators

Brooklawn operates four cremators identified as follows: Unit 1, Unit 2, Unit 98, and Unit 2K. **Units 1 and 2** are Model IE43-PP Power-Pak cremator units, each manufactured and installed in 1984, with the following specifications:

Class of Incinerator	IV-A
No. of Chambers	2
Type of Waste	Type 4
Max. Design Combustion Rate	150 lb per hour
Max. Actual Feed Rate	300 lb per charge
Auxiliary Fuel Input:	
Primary Chamber	0.75 MMBtu/hour (firing natural gas)
Secondary Chamber	0.85 MMBtu/hour (firing natural gas)
Emission Control	Afterburner

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

Combustion gases from Units 1 and 2 vent to Stack #1 and Stack #2, respectively, which are 33 feet above ground level (AGL).

Units 98 and 2K are Model IE43-SSP Super Power-Pak cremator units. Unit 98 was manufactured and installed in 1998, and Unit 2K was manufactured and installed in 2000. Each unit has the following specifications:

Class of Incinerator	IV-A
No. of Chambers	2
Type of Waste	Type 4
Max. Design Combustion Rate	200 lb per hour
Max. Actual Feed Rate	800 lb per charge
Auxiliary Fuel Input: Primary Chamber	1.5 MMBtu/hour (firing natural gas)
Secondary Chamber	1.5 MMBtu/hour (firing natural gas)
Emission Control	Afterburner

Combustion gases from Units 98 and 2K vent to Stack #3 and Stack #4, respectively, which are 18.5 feet AGL.

The incinerators are equipped with non-specification opacity monitors that are control-coupled for automatic combustion controls. These monitors are for operational control and not for compliance purposes.

B. Emergency Generator

The facility is also equipped with an emergency generator with the following specifications:

Unit	Rated Output	Firing Rate (scf/hr)	Fuel Type	Dates of ...	
				Manufacture	Installation
Emergency Generator	49.2 kW (66 HP)	584	Natural gas	2/2006	6/2006

This unit was identified as an “insignificant activity” in the facility’s 2009 air emission license. Regulation changes since that time resulted in this unit to no longer being classified as insignificant. Thus, although it is an existing unit at the facility, it is a new addition to the air emission license.

C. Application Classification

The application for Brooklawn 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 and existing, recently

applicable emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended).

II. BEST PRACTICAL TREATMENT

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 06-096 CMR 100 (as amended). BPT for existing 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. Cremators: Unit 1, Unit 2, Unit 98, and Unit 2K

BACT/BPT for each cremator is the following:

1. Emission Limits

Emissions information is based on a licensed allowed particulate matter emission limit of 0.12 gr/dscf, corrected to 12% CO₂, the burning of natural gas as an auxiliary fuel, and the use of the following factors:

Emissions from the **natural gas** portion of the total exhaust from each unit were based on the following:

PM, PM ₁₀	1.9 lb/MMscf; AP-42 Table 1.4-2, dated 7/1998
SO ₂	0.6 lb/MMscf; AP-42 Table 1.4-2, dated 7/1998
NO _x	100 lb/MMscf; AP-42 Table 1.4-1, dated 7/1998
CO	84 lb/MMscf; AP-42 Table 1.4-1, dated 7/1998
VOC	5.5 lb/MMscf; AP-42 Table 1.4-2, dated 7/1998

The BPT emissions from the **biomedical** portion of the total exhaust were based on the following:

PM, PM ₁₀	0.12 gr/dscf @ 12% CO ₂ ; and previous BACT analysis (A-48-71-J-R)
SO ₂	2.17 lb/ton; AP-42 Table 2.3-1, dated 7/93
NO _x	3.56 lb/ton; AP-42 Table 2.3-1, dated 7/93
CO	2.95 lb/ton; AP-42 Table 2.3-1, dated 7/93
VOC	0.299 lb/ton; AP-42 Table 2.3-2, dated 7/93

The BPT emission limits for each Cremator are as follows:

	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Unit 1	0.97	0.97	0.161	0.43	0.35	0.03
Unit 2	0.97	0.97	0.161	0.43	0.35	0.03
Unit 98	0.90	0.90	0.221	0.55	0.46	0.04
Unit 2K	0.90	0.90	0.221	0.55	0.46	0.04

Visible emissions from each cremator stack shall not exceed 10% opacity on a six-minute block average basis.

2. Operating Parameters

- a. Operating temperature in the secondary chamber shall be maintained at or above 1600°F for the duration of the burn cycle, with a stack gas retention time at or above 1600°F of at least 1.0 second.
- b. To ensure an efficient burn and to prevent odors and visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures at least 1200°F.
- c. No remains shall be introduced into the primary chamber until the temperature in the secondary chamber has reached 1200°F.
- d. Once the burn cycle has commenced by introduction of primary chamber combustion, the cremator shall be operated in an efficient manner and as specified by the manufacturer, for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600°F in the secondary chamber.
- e. A pyrometer and ¼-inch test port shall be installed and maintained at that location of the cremator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 second at a minimum of 1600°F.
- f. Records shall be maintained of the weight of the remains, preheat time, charging time, and the temperature of the secondary chamber every 60 minutes after start-up until and including final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged shall be logged on the chart.
- g. The cremator operator(s) shall receive adequate training to operate the cremator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

C. Emergency Generator

Brooklawn operates a Kohler emergency generator rated at 0.46 MMBtu/hour which fires natural gas. The unit was manufactured in February of 2006 and installed in June of 2006.

1. BACT/BPT Findings

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

Pollutant	Emission Factor, lb/MMBtu	Origin of Emission Factor
PM, PM ₁₀	7.71x10 ⁻⁵	AP-42, Table 3.2-2 (7/2000)
SO ₂	5.88x10 ⁻⁴	
NO _x	4.08	
CO	0.557	
VOC	0.118	

The BACT/BPT emission limits for the generator 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)
Emergency Generator 0.46 MMBtu/hour Natural gas	negligible			1.88	0.26	0.05

Visible emissions from the Emergency Generator shall not exceed 10% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

2. New Source Performance Standards (NSPS): 40 CFR Part 60, Subpart JJJJ

The federal regulation 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*, applies to engines ordered after June 12, 2006, and manufactured after January 1, 2009. Because this engine was manufactured in February of 2006, it is not subject to the NSPS requirements of 40 CFR Part 60, Subpart JJJJ.

3. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, is applicable to the emergency generator listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source and is not subject to NSPS 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 this unit from the federal requirements of Subpart ZZZZ.

a. *Emergency stationary RICE* is defined as any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE 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 RICE used to pump water in the case of fire, flood, etc. There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
 - (a) 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. Brooklawn 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 Brooklawn maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - (b) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, *Capacity and Energy Emergencies*, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in NERC Reliability Standard EOP-002-3.
 - (c) Periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

With the exception described below, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (c) The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.
- (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

The Emergency Generator shall be limited to the usage outlined in 40 CFR §63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all the requirements for a non-emergency engine.

b. 40 CFR Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements

Operating Limitations (40 CFR §63.6603(a) and Table 2(d))	
Spark ignition (natural gas, propane) units:	- Change oil and filter every 500 hours of operation or annually, whichever comes first;
Emergency Generator	- Inspect spark plugs every 1000 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 Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions, or Brooklawn 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 CFR §63.6625(e)]

(2) Non-Resetable Hour Meter Requirement

A non-resetable hour meter shall be installed and operated on the Emergency Generator. [40 CFR §63.6625(f)]

(3) 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 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

(4) Annual Time Limit for Maintenance and Testing

The Emergency Generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

(5) Recordkeeping

Brooklawn shall keep records that include maintenance conducted on the Emergency Generator and the hours of operation of the engine recorded through the non-resetable hour meter. Documentation shall include the number of hours operated in emergency situations, including what classified each situation as emergency, and the number of hours operated for non-emergency purposes. If the unit is operated during a period of demand response, during a period of deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR §63.6640(f)(4)(ii), Brooklawn shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

D. Annual Emissions

1. Brooklawn shall be restricted to the following annual emissions, on a calendar year basis. These tons per year values were calculated based on the following:
 - hourly emission limits for the four cremators and
 - 1300 charges per year each (at maximum changing capacity) for Unit 1 and Unit 2; and
 - 2000 charges per year each (at maximum changing capacity) for Unit 98 and Unit 2K; and
 - 100 hours/year of operation of the Emergency Generator.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Cremators: Unit 1 and Unit 2	2.6	2.6	0.42	1.12	0.91	0.08
Cremators: Unit 98 and Unit 2K	7.2	7.2	1.77	4.40	3.68	0.16
Emergency Generator	negligible			0.10	0.01	0.003
Total TPY*	9.8	9.8	2.2	5.6	4.6	0.2

* Rounded to the nearest 0.1 ton

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's auxiliary fuel used;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required.

III. AIR QUALITY ANALYSIS

Per 06-069 CMR 115, the level of air quality analysis and monitoring required are determined on a case-by-case basis. Based on analyses for similar sources, the size of this source, the allowable emissions levels, the location, and the stack heights, ambient air quality standards including increments are not expected to be violated. Thus, an ambient air impact analysis is not required for this source at this time.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this above 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-48-71-K-R, 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 which any emission 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. [06-096 CMR 115]
- (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 MRSA §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 control systems required by the air emission license in a manner consistent with good air pollution control practices 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 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 the 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 is an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary 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 the 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 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 provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department

within two days or the next state working day, whichever is later, of such occasions when such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitations. [06-096 CMR 115]

- (15) Upon the written request of 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 data. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Cremators: Unit 1, Unit 2, Unit 98, and Unit 2K**

- A. The cremators shall be used for the disposal of type 4 waste and shall not be used for the disposal of plastics, cytotoxic (antineoplastic) drugs or any radioactive wastes and shall not be used to dispose of any medical waste classified as type 7 waste, as defined in 06-096 CMR 100. [06-096 CMR 115, BPT/BACT]
- B. The cremators shall not exceed each unit's maximum design combustion rates. Auxiliary fuel inputs to the primary and secondary chambers shall be natural gas for each unit. Compliance shall be demonstrated through fuel receipts. [06-096 CMR 115, BPT/BACT]
- C. Each cremator shall not exceed a particulate matter emission limit of 0.12 gr/dscf corrected to 12% CO₂. Licensed allowed emissions for the cremators shall not exceed the following:

Cremator Emission Limits

	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Unit 1	0.97	0.97	0.161	0.43	0.35	0.03
Unit 2	0.97	0.97	0.161	0.43	0.35	0.03
Unit 98	0.90	0.90	0.221	0.55	0.46	0.04
Unit 2K	0.90	0.90	0.221	0.55	0.46	0.04

Compliance shall be demonstrated through stack testing by request of the Department, in accordance with the appropriate method found in 40 CFR Part 60, Appendix A. [06-096 CMR 115, BPT/BACT]

D. Visible emissions from each cremator stack shall not exceed 10% opacity on a six-minute block average basis. [06-096 CMR 115, BPT/BACT]

E. Operating Parameters [06-096 CMR 115, BPT/BACT]

The following operating parameter requirements apply to each cremator.

1. Operating temperature in the secondary chamber shall be maintained at or above 1600°F for the duration of the burn cycle, with a stack gas retention time at or above 1600°F of at least 1.0 second.
2. The secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures at least 1200°F.
3. No remains shall be introduced into the primary chamber until the temperature in the secondary chamber has reached 1200°F.
4. Once the burn cycle has commenced by introduction of primary chamber combustion, the cremator shall be operated in an efficient manner and as specified by the manufacturer, for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600°F in the secondary chamber.
5. A pyrometer and ¼-inch test port shall be installed and maintained at that location of the cremator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 second at a minimum of 1600°F.
6. Records shall be maintained of the weight of the remains, preheat time, charging time, and the temperature of the secondary chamber every 60 minutes after start-up until and including final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged shall be logged on the chart.

F. The cremator operator(s) shall receive adequate training to operate the cremator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License. [06-096 CMR 115, BPT/BACT]

(17) Emergency Generator

A. The Emergency Generator shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115]

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

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Emergency Generator	negligible			1.88	0.26	0.05

C. Visible Emissions

Visible emissions from the Emergency Generator shall not exceed 10% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

D. The Emergency Generator shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. Brooklawn shall conduct the following for the Emergency Generator:
 - a. Change the oil and filter annually,
 - b. Inspect the spark plugs annually and replace as necessary, and
 - c. Inspect the hoses and belts annually and replace as necessary.

A log shall be maintained documenting compliance with these operational requirements. [40 CFR §63.6603(a) and Table 2(d); 06-096 CMR 115]

2. Operation and Maintenance

The Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions, or Brooklawn shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the unit in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the Emergency Generator. [40 CFR §63.6625(f)]

4. 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 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

5. Annual Time Limit for Maintenance and Testing

The Emergency Generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand

response, or to generate income by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §63.6640(f)(4)(ii) are met. [40 CFR §63.6640(f)]

6. Recordkeeping

Brooklawn shall keep records that include maintenance conducted on the Emergency Generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours operated in emergency situations, including what classified each situation as emergency, and the number of hours operated for non-emergency purposes. If the unit is operated during a period of demand response, during a period of deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR §63.6640(f)(4)(ii), Brooklawn shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

DONE AND DATED IN AUGUSTA, MAINE THIS 31 DAY OF December, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, 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 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the application for license renewal.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 5, 2014

Date of application acceptance: November 7, 2014

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

