



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

**The Jackson Laboratory
Hancock County
Bar Harbor, Maine
A-93-71-AA-A (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #3**

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

The Jackson Laboratory (JAX) was issued Air Emission License A-93-71-X-R on November 24, 2014, permitting the operation of emission sources associated with their biomedical facility. The license was subsequently amended on March 20, 2015 (A-93-71-Y-A), and on October 2, 2015 (A-93-71-Z-A).

JAX has requested an amendment to their license in order to install a new emergency generator and to add an existing portable generator. In addition, JAX has requested a clarification regarding the plastic used in handling, containment, and conveying of Type 4 waste or any other type waste licensed for incineration in Incinerator #3.

The equipment addressed in this license is located at 600 Main Street, Bar Harbor, Maine.

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

B. Emission Equipment

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

Generators

<u>Equipment</u>	<u>Maximum Heat Input Capacity (MMBtu/hr)</u>	<u>Maximum Output Capacity (KW)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Generator #10	19	2000	138	Distillate, 0.0015%	2016	10G
Portable Generator	2.1	211	15.4	Distillate, 0.0015%	2000	--

C. Definitions

Distillate Fuel means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396, diesel fuel oil numbers 1 or 2, as defined in ASTM D975, kerosene, as defined in ASTM D3699, biodiesel as defined in ASTM D6751, or biodiesel blends as defined in ASTM D7467.

D. Application Classification

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 CMR 100 (as amended). The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Significant Emission Levels</u>
PM	19.8	20.0	+0.2	100
PM ₁₀	19.8	20.0	+0.2	100
SO ₂	18.3	18.3	+0.0	100
NO _x	63.7	69.7	+6.0	100
CO	55.0	56.5	+1.5	100
VOC	5.7	5.9	+0.2	50

This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Incinerator #3

JAX added a new incinerator to their license in license amendment A-93-71-Z-A. Past practice has been to handle, contain, and convey Type 4 waste using paper products. The manufacturer of the new unit recommends using plastic instead of paper products. The Department finds that the plastic used in the handling, containment, and conveyance of Type 4 waste or any other type waste licensed for incineration in this unit is considered to be incidental in nature and consistent with the licensed use of this unit.

C. Generator #10

JAX is proposing to install a Caterpillar 2.0 MW 3516C TA diesel engine, model year 2016. The generator is certified to conform to the applicable Environmental Protection Agency (EPA) emission tier by the engine manufacturer. The engine specifications and the EPA Certificate of Conformity were supplied as part of the license amendment application for this generator.

Generator #10 will be located in Building 54 along with Generator #6, Generator #8 and Generator #9. Exhaust from the engine will be routed through a dedicated 60 foot, 16 inch inside diameter stack.

Emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. Generator #10 has an engine with a maximum heat input capacity of 19 MMBtu/hr firing distillate fuel.

1. BACT Findings

The BACT emission limits for Generator #10 are based on the following:

- PM - 0.08 lb/MMBtu from 06-096 115, BACT
- PM₁₀ - 0.06 lb/MMBtu from AP-42, Table 3.4-2, dated 10/96
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 3.2 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
- CO - 0.85 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
- VOC - 0.09 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
- Opacity - 06-096 CMR 101

The BACT emission limits for the Generator #10 are the following:

Unit	Pollutant	lb/MMBtu
Generator #10	PM	0.08

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #10 (19 MMBtu/hr) distillate fuel	1.52	1.14	0.03	60.80	16.15	1.71

Visible emissions from Generator #10 shall not exceed 20% opacity on a 6-minute block average basis.

2. 40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to the emergency engine listed above since the unit was ordered after July 11, 2005 and manufactured after April 1, 2006. By meeting the requirements of Subpart IIII, the unit also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ.

a. Emergency Definition:

Emergency stationary ICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied

to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary ICE in emergency situations.

- (2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
- (i) 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 beyond 100 hours per calendar year.
 - (ii) 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 the NERC Reliability Standard EOP-002-3.
 - (iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary ICE may be operated for up to 50 hours per calendar year in other 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.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency 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, except if the following conditions are met:

- (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

- (ii) 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.
- (iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (v) 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.

[40 CFR §60.4211(f) and §60.4219]

b. 40 CFR Part 60, Subpart III Requirements:

(1) Manufacturer Certification Requirement

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

(2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR §60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

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

(4) Operation and Maintenance Requirements

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

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit 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 for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]

(6) Initial Notification Requirement

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

(7) Recordkeeping

JAX 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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engine is operated during a period of demand response or 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 §60.4211(f)(3)(i), JAX shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR §60.4214(b)]

(8) Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year

If JAX operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

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

[40 CFR §60.4214(d)]

D. Portable Emergency Generator

JAX operates a portable emergency generator. The Portable Emergency Generator has an engine rated at 2.1 MMBtu/hr which fires distillate fuel and was manufactured in 2000. The Portable Emergency Generator is trailer-mounted and remains on the facility's site and is moved as needed. The generator is equipped with a Caterpillar Model 3306 engine. The genset is a 2000 Model XQ225 rated at 306 HP and 211 kW. Specifications and the EPA Certification of Conformity were supplied as part of the license amendment application.

1. BACT Findings

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

- PM - 0.31 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
- PM₁₀ - 0.31 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
- SO₂ - 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 - 0.35 lb/MMBtu from AP-42, Table 3.3-1 dated 10/96
- Opacity - 06-096 CMR 101

The BACT emission limits for the Portable Emergency Generator are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Portable Emergency Generator (2.1 MMBtu/hr) Distillate fuel	0.66	0.66	0.01	9.31	2.00	0.74

Visible emissions from the Portable Emergency Generator shall not exceed 20% opacity on a 6-minute block average basis.

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

The Portable Emergency Generator is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond

the control of the source. The generator is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

2. 40 CFR Part 63, Subpart ZZZZ

The Portable Emergency Generator is considered a non-road engine, as opposed to a stationary engine, since Portable Emergency Generator is portable and will be moved to various sites at the facility. Therefore, the Portable Emergency Generator is not subject to 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. The definition in 40 CFR Part 1068.30 states that a non-road engine is an internal combustion engine that meets certain criteria, including: "Portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform." 40 CFR Part 1068.30 further states that an engine is not a non-road engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. An engine located at a seasonal source (a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year) is an engine that remains at a seasonal source during the full annual operating period of the seasonal source.

E. Annual Emissions

1. Total Annual Emissions

JAX shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- A combined annual fuel heat input limit of 315,000 MMBtu/year for the boilers, vaporizers, and incinerators.
- 100 hours of operation per calendar year for each generator, excluding operating hours during emergency situations.
- Operation of the ethylene oxide sterilizers and catalytic oxidizers for 8760 hr/year each.

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

	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>	<u>HAP</u>
Boilers and Vaporizers	12.6	12.6	12.3	47.3	47.3	3.2	-
Generator #2	0.1	0.1	0.1	0.5	0.1	0.1	-
Generator #3	0.1	0.1	0.1	0.5	0.1	0.1	-
Generator #6	0.1	0.1	0.1	2.0	0.5	0.1	-
Generator #8, #9	0.2	0.2	0.1	5.0	1.3	0.2	-
Generator #10	0.11	0.06	0.01	3.04	0.81	0.1	-
Portable Emergency Generator	0.03	0.03	0.01	0.47	0.10	0.04	-
Incinerator #1	3.0	3.0	4.2	9.3	0.8	0.4	-
Incinerator #3	3.8	3.8	1.4	1.6	5.5	1.6	-
Sterilizers	-	-	-	-	-	0.1	0.1
Total TPY	20	20	18.3	69.7	56.5	5.9	0.1

III. AMBIENT AIR QUALITY ANALYSIS

JAX previously submitted an ambient air quality impact analysis for air emission license A-93-71-V-A (dated February 18, 2011) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this amendment.

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-93-71-AA-A subject to the conditions found in Air Emission License A-93-71-X-R, in amendments A-93-71-Y-A and A-93-71-Z-A, and the following conditions.

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- [06-096 CMR 115]

SPECIFIC CONDITIONS

The Following are New Conditions:

(28) Generator #10

A. Generator #10 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:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Generator #10	PM	0.08	06-096 CMR 115, BACT

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator #10 (19 MMBtu/hr) distillate fuel	1.52	1.14	0.03	60.80	16.15	1.71

D. Visible Emissions

Visible emissions from Generator #10 shall each not exceed 20% opacity on a six (6) minute block average basis. [06-096 CMR 115, BACT]

E. Generator #10 shall meet the applicable requirements of 40 CFR Part 60, Subpart III, including the following:

1. Manufacturer Certification

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

2. Ultra-Low Sulfur Fuel

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115]

3. **Non-Resetable Hour Meter**
A non-resettable hour meter shall be installed and operated on the Generator #10 engine. [40 CFR §60.4209(a)]
4. **Annual Time Limit for Maintenance and Testing**
 - a. As an emergency engine, the unit 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 for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4211(f)(3)(i) are met). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 CFR §60.4211(f) and 06-096 CMR 115]
 - b. JAX 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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engine is operated during a period of demand response or 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 §60.4211(f)(3)(i), the JAX shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
5. **Operation and Maintenance**
The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by JAX that are approved by the engine manufacturer. JAX may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]
6. **Annual Reporting For Demand Response Availability Over 15 Hours Per Year**
If JAX operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting

form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

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

[40 CFR §60.4214(d)]

(29) **Portable Emergency Generator**

- A. The Portable Emergency Generator shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115, BACT]
- B. JAX 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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. [06-096 CMR 115, BACT]
- C. If the engine is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity, JAX shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [06-096 CMR 115, BACT]
- D. The fuel sulfur content for the Portable Emergency Generator shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]
- E. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Portable Emergency Generator (2.1 MMBtu/hr) distillate fuel	0.66	0.66	0.01	9.31	2.00	0.74

F. **Visible Emissions**

Visible emissions from the Portable Emergency Generator shall not exceed 20% opacity on a 6-minute block average basis. [06-096 CMR 115, BACT]

G. The Portable Emergency Generator shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The Portable Emergency Generator is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

DONE AND DATED IN AUGUSTA, MAINE THIS 9 DAY OF March, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-93-71-X-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 8, 2016

Date of application acceptance: January 21, 2016

Date filed with the Board of Environmental Protection:

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

