



DEPARTMENT ORDER

**The Jackson Laboratory
Hancock County
Ellsworth, Maine
A-1127-71-B-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

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 (M.R.S.) § 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-1127-71-A-N on 4/28/2017, for the operation of emission sources associated with their mouse production facility.

JAX has requested a minor revision to their license in order to make the following changes:

1. Update the model number and size of the ethylene oxide sterilizer installed; and
2. Revise the naming convention for the boilers and generators.

The equipment addressed in this license amendment is located at 21 Kingsland Crossing, Ellsworth, Maine.

B. Emission Equipment

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

Process Equipment

Equipment	Process Rate	Pollution Control Equipment
EtO Sterilizer #1	170 g EtO/batch	Catalytic Oxidizer (Abator)

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.	Stack #
Boiler #1	8.0	57.1	distillate fuel, 0.0015%	2017	B1
		88.4	propane, negligible		
Boiler #2	25.0	178.6	distillate fuel, 0.0015%	2017	B2
		276.2	propane, negligible		
Boiler #3	25.0	178.6	distillate fuel, 0.0015%	2017	B3
		276.2	propane, negligible		

JAX has renamed Boilers #1 and #3, i.e. the boiler previously named Boiler #1 is now Boiler #3 and the previous Boiler #3 is now called Boiler #1.

Generators

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity	Fuel Type, % sulfur	Maximum Firing Rate (gal/hr)	Date of Manuf.	Stack #
Generator A	12.6	1250 kW	distillate fuel, 0.0015%	90.5	2017	GA
Generator B	12.6	1250 kW	distillate fuel, 0.0015%	90.5	2017	GB

JAX has renamed Generators #1 and #2 to Generators A and B.

JAX 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, JAX 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.

C. Application Classification

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

This amendment will increase emissions by less than 4 ton/year for each single pollutant not including greenhouse gases (GHG) and less than 8 ton/year for all pollutants combined not including GHG. Therefore, this modification is determined to be a minor revision and has been processed as such.

D. Facility Classification

With the operating hours restriction on the emergency generators and the use of controls on the ethylene oxide sterilizer, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; 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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers and Generators

JAX has renamed several of the previously licensed boilers and generators. The boiler previously named Boiler #1 is now Boiler #3 and the previous Boiler #3 is now called Boiler #1. JAX has also renamed Generators #1 and #2 to Generators A and B.

The Order section of this air emission license completely replaces that of air emission license A-1127-71-A-N in order to address this change in naming convention.

JAX submitted to EPA notification of commencement of construction of the boilers in accordance with 40 C.F.R. § 48c(a) on 11/7/17. JAX submitted to EPA notification of

actual startup of the boilers in accordance with 40 C.F.R. § 48c(a) and the initial notification required per 40 C.F.R. § 63.11225(a)(2) on 1/31/18. Since these requirements have been met, associated Conditions have been removed from the license.

No other changes have been made to this equipment.

C. EtO Sterilizer #1

JAX previously proposed the installation of a 3M™ Steri-VAC GS5X ethylene oxide (EtO) sterilizer with a chamber capacity of 4.8 cubic feet (EtO Sterilizer #1). JAX has proposed to instead install a 3M™ Steri-VAC GS8X unit with a chamber capacity of 7.9 cubic feet.

EtO Sterilizer #1 will use sealed EtO cartridges that are only punctured once the cartridge is inside the locked, sealed sterilization chamber, minimizing the potential for EtO leaks. The EtO cartridges are single-use and contain 170 grams of EtO each.

1. BACT Findings

EtO Sterilizer #1 will emit EtO which is both a VOC and a HAP.

EtO emissions can be controlled using add-on pollution control equipment such as wet scrubbers, catalytic oxidizers, or condensers, all three of which can achieve control efficiencies greater than 99%. Wet scrubbers produce a wastewater effluent that requires disposal and/or treatment. Condensers also produce a by-product ethylene oxide stream which would require disposal and treatment.

JAX proposes to install a catalytic oxidizer known as an abator. The 3M™ EtO Abator Model 50AN converts the EtO exhausted from the sterilization unit into carbon dioxide and water vapor. The exothermic reaction occurs in the presence of a proprietary catalyst with a lifetime of 930 batches and has an EtO destruction efficiency of 99.9%. Operating continuously with the catalytic oxidizer, EtO Sterilizer #1 has the potential to emit less than 10 pounds per year of EtO which is half of the insignificant emissions threshold for EtO as identified in 06-096 C.M.R. ch. 115, Appendix B(C).

BACT for EtO Sterilizer #1 shall be operation and maintenance of the unit according to the manufacturer's specifications. The catalytic oxidizer shall not be used for more than 930 batches without replacement. JAX shall keep records of all maintenance performed on EtO Sterilizer #1 and the associated catalytic oxidizer as well as the number of batches processed between catalytic oxidizer replacement.

Visible emissions from EtO Sterilizer #1 shall not exceed 10% opacity on a six (6) minute block average basis.

2. National Emission Standards for Hazardous Air Pollutants

JAX is not subject to *National Emission Standards for Hospital Ethylene Oxide Sterilizers*, 40 C.F.R. Part 63, Subpart WWWW as JAX does not provide medical care and treatment for patients under supervision of licensed physicians or under nursing care. Therefore, JAX does not meet the definition of a hospital and is not subject to this subpart.

JAX is not subject to *Ethylene Oxide Emissions Standards for Sterilization Facilities*, 40 C.F.R. Part 63, Subpart O as JAX does not have the potential to use more than 1.0 ton/year of EtO. In addition, JAX is further exempt from this regulation as it is a research or laboratory facility as defined in the *Clean Air Act Amendments of 1990*, § 112(C)(7).

D. Annual Emissions

This amendment will not result in any change to licensed annual emissions.

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 Amendment A-1127-71-B-M subject to the conditions found in Air Emission License A-1127-71-A-N and the following conditions.

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

The Following Conditions replace ALL Standard and Specific Conditions in Air Emission License A-1127-71-A-N.

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 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 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 Part 70 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]

SPECIFIC CONDITIONS

(16) **Boilers #1, #2, and #3**

A. Fuel

- Boilers #1, #2, and #3 are each licensed to fire propane and distillate fuel. [06-096 C.M.R. ch. 115, BACT]
- JAX shall fire distillate fuel with a maximum sulfur content not to exceed 0.0015% by weight. [06-096 C.M.R. ch. 115, BACT]

B. JAX shall operate FGR on Boilers #2 and #3 and oxygen trim systems on all boilers to control emissions. [06-096 C.M.R. ch. 115, BACT]

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.03	06-096 C.M.R. ch. 115, BACT
Boiler #2	PM	0.03	06-096 C.M.R. ch. 115, BACT
Boiler #3	PM	0.03	06-096 C.M.R. ch. 115, BACT

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

Emission Unit	PM (lb/hr)	PM₁₀ (lb/hr)	PM_{2.5} (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 distillate fuel	0.24	0.24	0.24	0.01	1.60	0.31	0.24
Boiler #1 propane	0.24	0.24	0.24	0.01	0.42	0.31	0.07
Boiler #2 distillate fuel	0.75	0.75	0.75	0.04	2.75	0.90	0.40
Boiler #2 propane	0.75	0.75	0.75	0.03	1.23	1.83	0.21
Boiler #3 distillate fuel	0.75	0.75	0.75	0.04	2.75	0.90	0.40
Boiler #3 propane	0.75	0.75	0.75	0.03	1.23	1.83	0.21

- E. Visible emissions from any boiler firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- F. Visible emissions from any boiler firing propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- G. JAX shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #2 and #3 including, but not limited to, the following:
1. JAX shall perform and submit to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility on distillate fuel. The performance test shall consist of fuel supplier certification of the sulfur content of the fuel fired in each boiler. The fuel supplier certification must contain the name of the oil supplier, the sulfur content (or maximum sulfur content) of the oil, and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil as contained in this license. [40 C.F.R. §§ 60.44c(h) and 60.48c(f)]
 2. JAX shall record and maintain records of the amounts of each fuel combusted in each boiler during each calendar month. [40 C.F.R. § 60.48c(g)]

3. JAX shall submit semi-annual reports to EPA and to the Department. These reports shall include the calendar dates covered in the reporting period, records of fuel supplier certifications, and a certified statement signed by the owner or operator of the facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. The semi-annual reports are due within 30 days of the end of each six-month period.
[40 C.F.R. §§ 60.48c(d), (e), (f), and (j)]

H. JAX shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boilers #1, #2, and #3 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BACT]

1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New oil-fired boilers with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

- b. Boilers #1, #2, and #3 are not required to complete an initial performance tune-up. However, the first tune-up is due no later than 61 months after initial startup. [40 C.F.R. § 63.11210(g)]
- c. 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 for up to 72 months from the previous inspection. [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 for up to 72 months from the previous inspection. [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)]

d. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. 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 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)]

a. Company name and address;

b. A statement of whether the source has complied with all the relevant requirements of this Subpart;

c. 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;

d. 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."

3. 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, on a monthly basis, of the type(s) of fuel combusted in each boiler;
 - d. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - e. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.

(17) Vaporizers #1 and #2

- A. Vaporizers #1 and #2 are each licensed to fire propane. [06-096 C.M.R. ch. 115, BACT]
- B. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

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)
Vaporizer #1	0.04	0.04	0.04	—	0.20	0.12	0.02
Vaporizer #2	0.04	0.04	0.04	—	0.20	0.12	0.02

- C. Visible emissions from each vaporizer shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(18) Generators A and B

- A. Generators A and B 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, BACT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator A	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
Generator B	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

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

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 A	1.51	1.51	1.51	0.02	40.26	10.69	1.13
Generator B	1.51	1.51	1.51	0.02	40.26	10.69	1.13

D. Visible emissions from Generators A and B shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

E. Generators A and B shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart III, including the following:
[incorporated under 06-096 C.M.R. ch. 115, BACT]

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 based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]

4. 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, 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, 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). These 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. § 60.4211(f) and 06-096 C.M.R. ch. 115]

- b. JAX shall keep records that include maintenance conducted on each engine 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. § 60.4214(b)]

5. Operation and Maintenance

The engines 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 C.F.R. § 60.4211(a)]

(19) **EtO Sterilizer #1**

- A. EtO Sterilizer #1 and the associated catalytic oxidizer shall be operated and maintained according to the manufacturer's specifications.
[06-096 C.M.R. ch. 115, BACT]
- B. The catalytic oxidizer shall be operated at all times EtO Sterilizer #1 is in operation.
[06-096 C.M.R. ch. 115, BACT]
- C. The catalytic oxidizer shall not be used for more than 930 batches without replacement.
[06-096 C.M.R. ch. 115, BACT]
- D. JAX shall keep records of all maintenance performed on EtO Sterilizer #1 and the associated catalytic oxidizer as well as the number of batches processed between catalytic oxidizer replacement. [06-096 C.M.R. ch. 115, BACT]
- E. Visible emissions from EtO Sterilizer #1 shall not exceed 10% opacity on a six (6) minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(20) **Annual Emission Statement**

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, JAX 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. JAX shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of each fuel fired in each boiler on a monthly basis;
 2. The amount of distillate fuel fired in each generator on a monthly basis;
 3. The sulfur content of the distillate fuel fired in the boilers and generators;
 4. The amount of propane fired in the vaporizers on a monthly basis;
 5. Emissions of EtO from the sterilizer based on the number of batches processed and a catalytic oxidizer efficiency of 99.9%; and
 6. Hours of operation for each emission unit on a monthly basis.
- [06-096 C.M.R. ch. 137]

(21) JAX 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).

DONE AND DATED IN AUGUSTA, MAINE THIS 9 DAY OF May, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Paul Allen Robert Cone for
PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-1127-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/5/18

Date of application acceptance: 4/9/18

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

