



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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L.L. Bean, Inc.
Desert Road Campus
Cumberland County
Freeport, Maine
A-764-71-H-R/A (SM)

Departmental
Findings of Fact and Order
Air Emission License
Renewal/Amendment

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

L.L. Bean, Inc. has applied to renew their Air Emission License for the operation of emission sources associated with their Desert Road Campus facility. L.L. Bean, Inc. has also requested that their license be amended to remove several pieces of equipment from their license that are no longer in service.

The equipment addressed in this license is located on Desert Road in Freeport, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type	Maximum Firing Rate (scf/hr)	Date of Manuf.	Date of Install.	Stack #
OFC-ARU #1	2.4	Natural Gas	2400	1996	1996	OFC-ARU #1
OFC-ARU #2	1.2	Natural Gas	1200	1996	1996	OFC-ARU #2
OFC-ARU #5	1.8	Natural Gas	1800	1996	1996	OFC-ARU #5
OFC-ARU #9	1.8	Natural Gas	1800	2007	2007	OFC-ARU #9
OFC-ARU #10	1.8	Natural Gas	1800	2007	2007	OFC-ARU #10
OFC-ARU #11	1.8	Natural Gas	1800	2007	2007	OFC-ARU #11
OFC-ARU #12	1.8	Natural Gas	1800	2007	2007	OFC-ARU #12
OFC/S-ARU #1	2.4	Natural Gas	2400	1993	1993	OFC/S-ARU #1

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<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Fuel Type</u>	<u>Maximum Firing Rate (scf/hr)</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
OFC/S-ARU #2	3.75	Natural Gas	3750	1993	1993	OFC/S-ARU #2
DRS-BLR #1	2.51	Natural Gas	2500	1992	1992	DRS-BLR #1
DRS-BLR #2	2.51	Natural Gas	2500	1992	1992	DRS-BLR #2

Generators / Emergency Engines

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Rated Output Capacity</u>	<u>Fuel Type, % sulfur</u>	<u>Maximum Firing Rate</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
OFC-CAT	4.20	400 kW	Distillate, 0.0015%	30.0 gal/hr	2001	2001	OFC-CAT
OFC-GEN-EXP07-06	0.5	90 kW	Natural Gas	451 scf/hr	2007	2007	OFC-GEN-EXP07-06
OFC-ONAN	0.5	60 kW	Natural Gas	485.5 scf/hr	1996	1996	OFC-ONAN
DDR-CUM-FP	0.84	5.9 Liter	Distillate, 0.0015%	6.0 gal/hr	1993	1993	DDR-CUM FP
Seasonal Unit #1	16.9	1500 kW	Distillate, 0.0015%	123.1 gal/hr	Post 2006	Post 2006	Seasonal Unit #1
Seasonal Unit #2	16.9	1500 kW	Distillate, 0.0015%	123.1 gal/hr	Post 2006	Post 2006	Seasonal Unit #2
Seasonal Unit #3	7.2	800 kW	Distillate, 0.0015%	52.7 gal/hr	Post 2006	Post 2006	Seasonal Unit #3

L.L. Bean, Inc. also operates additional fuel-burning equipment that has been deemed insignificant by definition, per *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115, based on their maximum heat input ratings.

The two generators listed below are considered insignificant but are being listed for purposes of completeness, as they were identified by name in the facility's license renewal application.

Emergency Generators Deemed Insignificant Due to their Size

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Rated Output Capacity</u>	<u>Fuel Type, % sulfur</u>	<u>Maximum Firing Rate</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
OFC-ONAN Service	0.26	20 kW	Natural Gas	252 scf/hr	1993	1993	OFC-ONAN Service
OFC-ONAN Reserve	0.26	20 kW	Natural Gas	252 scf/hr	1993	1993	OFC-ONAN Reserve

No insignificant equipment was factored into the facility's emission calculations or limits; however, insignificant equipment may still be subject to applicable regulations such as 06-096 C.M.R. ch. 101, 103, 106 and federal regulations.

C. Emission Equipment Removed

The equipment listed below was included in the previous air emission license, but has since been removed from service by the facility. This equipment is therefore not included in the renewal of this air emission license and is only being shown to provide document continuity for this facility.

**Equipment Removed from Facility
 (not included in this license renewal)**

<u>Equipment</u>	<u>Capacity</u>	<u>Fuel Type</u>	<u>Maximum Firing Rate</u>	<u>Stack #</u>	<u>Status</u>
OFC/WH	1.0 MMBtu/hr	Propane, Natural Gas	11 gal/hr, 1000 scf/hr	OFC/WH	REMOVED FROM SERVICE
OFC/S UH1	1.4 MMBtu/hr	Propane, Natural Gas	15 gal/hr, 1400 scf/hr	OFC/s UH1	REMOVED FROM SERVICE
OFC/S UH2	1.4 MMBtu/hr	Propane, Natural Gas	15 gal/hr, 1400 scf/hr	OFC/s UH2	REMOVED FROM SERVICE
Parts Washer #1	30 gallons	N/A	N/A	N/A	REMOVED FROM SERVICE
Parts Washer #2	30 gallons	N/A	N/A	N/A	REMOVED FROM SERVICE

The above units are hereby removed from the facility's air emission license and will not be addressed further.

D. Definitions

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

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

E. 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.

The application for L.L. Bean, Inc. does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and has been processed through 06-096 C.M.R. ch. 115.

This application is also being processed as an amendment because it documents the removal of emission sources by L.L. Bean, Inc. that were listed on their previous air emission license for this campus, and it incorporates those changes in this new air emission license. The removal of emission sources does not result in an increase in licensed emissions.

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 C.M.R. ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (TPY)	Future License (TPY)	Net Change (TPY)	Significant Emission Levels
PM	1.63	5.64	4.01	100
PM ₁₀	1.63	5.64	4.01	100
SO ₂	3.83	0.07	(3.76)	100
NO _x	21.73	20.76	(0.97)	100
CO	6.06	10.95	4.89	100
VOC	0.97	1.38	0.41	50
CO ₂ e	13,298	13,244	(54.00)	100,000

The emission limits for this license are higher than those from the previous license due to the change in operational hours allowed for the seasonal generators. The previous license limited their non-emergency operating time to 20 hours per year. This license changes that limit to 100 hours per year. No increase in emissions was caused by changes to the other existing equipment or to their operating parameters, or by the removal of equipment from the license. This source is still considered a minor source based on the new licensed emission limits.

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

With the operating hour restrictions on the emergency generators, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor.

With the operating hour restrictions on the emergency generators, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved

B. Boilers

L.L. Bean, Inc. operates eleven boiler units at their Desert Road Campus for building heating. The combined maximum heat input value of these eleven boilers is 23.8 MMBtu/hr. All of the boilers were installed after 1992, and each boiler exhausts through its own stack. The boilers are designated and rated as follows:

BOILER DESIGNATION	MAXIMUM HEAT INPUT CAPACITY (PER BOILER)
OFC-ARU #1 and OFC/S-ARU #1	2.4 MMBtu/hr
OFC-ARU #2	1.2 MMBtu/hr
OFC-ARU #5, OFC-ARU #9, OFC-ARU #10, OFC-ARU #11 and OFC-ARU #12	1.8 MMBtu/hr
OFC/S-ARU #2	3.75 MMBtu/hr
DRS-BLR #1 and DRS-BLR #2	2.51 MMBtu/hr

1. BPT Findings

The BPT emission limits for the boilers were based on the following:

Natural Gas

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
OFC-ARU #1 (2.4 MMBtu/hr) Natural Gas	0.12	0.12	0.01	0.24	0.20	0.01
OFC-ARU #2 (1.2 MMBtu/hr) Natural Gas	0.06	0.06	0.01	0.12	0.10	0.01
OFC-ARU #5 (1.8 MMBtu/hr) Natural Gas	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #9 (1.8 MMBtu/hr) Natural Gas	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #10 (1.8 MMBtu/hr) Natural Gas	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #11 (1.8 MMBtu/hr) Natural Gas	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #12 (1.8 MMBtu/hr) Natural Gas	0.09	0.09	0.01	0.18	0.15	0.01
OFC/S-ARU #1 (2.4 MMBtu/hr) Natural Gas	0.12	0.12	0.01	0.24	0.20	0.01
OFC/S-ARU #2 (3.75 MMBtu/hr) Natural Gas	0.19	0.19	0.01	0.38	0.32	0.02
DRS-BLR #1 (2.51 MMBtu/hr) Natural Gas	0.13	0.13	0.01	0.25	0.21	0.01
DRS-BLR #2 (2.51 MMBtu/hr) Natural Gas	0.13	0.13	0.01	0.25	0.21	0.01

Visible emissions from each boiler firing natural gas shall not exceed 10% opacity on a six-minute block average basis.

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

Although each of the boilers was manufactured after June 9, 1989, they each have a maximum heat input value of less than 10MMBtu/hr. Because they are under the minimum heat input design threshold for applicability, the boilers are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*.

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

The boilers covered under this license fire natural gas and are therefore exempt from 40 CFR Part 63, Subpart JJJJJ. [40 CFR § 63.11195(e)]

C. **Generators and Engines Manufactured Prior to 2006: OFC-CAT, OFC-ONAN and Fire Pump DDR-CUM-FP**

L.L. Bean, Inc. operates two (2) permanently installed emergency generators that were manufactured prior to 2006. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator.

L.L. Bean, Inc. also operates one emergency fire pump, designated DDR-CUM-FP. This fire pump has an engine that is rated at 0.84 MMBtu/hr, fires distillate fuel, and was manufactured in 1993.

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>
OFC-CAT	4.20	Distillate Fuel, 0.0015%	2001	2001
OFC-ONAN	0.5	Natural Gas	1996	1996
DDR-CUM-FP	0.84	Distillate Fuel, 0.0105%	1993	1993

1. BPT Findings

The BPT emission limits for emergency generator OFC-CAT and fire pump DDR-CUM-FP, both firing distillate fuel, are based on the following:

- PM/PM₁₀ - 0.12 lb/MMBtu, from 06-096 C.M.R. ch. 103 for OFC-CAT
- PM/PM₁₀ - 0.31 lb/MMBtu, from AP-42, Table 3.3-1 (dated 10/96) for DDR-CUM-FP
- 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)
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for emergency generator OFC-ONAN, firing natural gas, are based on the following:

- PM/PM₁₀ - 0.00008 lb/MMBtu, from AP-42, Table 3.2-2 (dated 7/2000)
- SO₂ - 0.00059 lb/MMBtu, from AP-42, Table 3.2-2 (dated 7/2000)
- NO_x - 4.08 lb/MMBtu, from AP-42, Table 3.2-2 (dated 7/2000)
- CO - 0.557 lb/MMBtu, from AP-42, Table 3.2-2 (dated 7/2000)
- VOC - 0.118 lb/MMBtu, from AP-42, Table 3.2-2 (dated 7/2000)
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the generators and emergency fire pump manufactured prior to 2006 are as follows:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
OFC-CAT (4.20 MMBtu/hr) Distillate fuel	0.50	0.50	0.01	18.52	3.99	1.47
OFC-ONAN (0.50 MMBtu/hr) Natural gas	0.01	0.01	0.01	2.04	0.28	0.06
DDR-CUM-FP (0.84 MMBtu/hr) Distillate fuel	0.26	0.26	0.01	3.70	0.80	0.29

Visible emissions from the distillate fuel fired emergency generator and fire pump shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from the natural gas fired emergency generator shall not exceed 10% opacity on a six-minute block average basis.

Each of the emergency generators and the emergency fire pump shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator and fire pump shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, L.L. Bean, Inc. shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor 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. New Source Performance Standards (NSPS)

Because units OFC-CAT and DDR-CUM-FP were manufactured prior to April 1, 2006, these engines are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*. [40 CFR § 60.4200]

Because unit OFC-ONAN was manufactured prior to January 1, 2009, this engine is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*. [40 CFR § 60.4230]

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 (NESHAP) for Stationary Reciprocating Internal Combustion Engines*, is not applicable to the emergency engines listed above. The

units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of Subpart ZZZZ since they are categorized as residential, commercial, or institutional emergency engines and they do not operate or are not 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 for supplying 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).

Operation of any emergency engine such that it exceeds 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 CFR Part 63, Subpart ZZZZ, and require compliance with all applicable requirements.

D. Generators Manufactured after 2006: OFC-GEN-EXP07-06, Seasonal Unit #1, Seasonal Unit #2 and Seasonal Unit #3

L.L. Bean, Inc. operates four (4) emergency generators that were manufactured after 2006: (3) three units that are installed and removed seasonally, and one (1) fixed unit that is permanently installed. All of the emergency generators are generator sets with each gen set consisting of an engine and an electrical generator.

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>
Seasonal Unit #1	16.9	Distillate Fuel, 0.0015%	Post 2006	Post 2006
Seasonal Unit #2	16.9	Distillate Fuel, 0.0015%	Post 2006	Post 2006
Seasonal Unit #3	7.2	Distillate Fuel, 0.0015%	Post 2006	Post 2006
OFC-GEN-EXP07-06	0.5	Natural Gas	2007	2007

Seasonal Unit #1, Seasonal Unit #2 and Seasonal Unit #3 are temporary units that are brought in and installed each year for emergency power generation purposes through the holiday season. They are brought in to be put into service on or about November 1st, and they are removed from service on or about the following January 1st of each year. They are rated with outputs of 1500, 1500 and 800 kW respectively, and all three generators fire distillate fuel. The generators are not required by this license to be the same ones from one year to the next. Instead, L.L. Bean, Inc. shall ensure that the seasonal emergency generators that they secure for

this service shall not exceed a total heat input capacity of 41 MMBtu/hr while burning 0.0015% sulfur distillate fuel by weight. For the purposes of this license the three seasonal emergency generators brought in by L.L. Bean each year under the restrictions listed above will be considered new generators and shall be subject to the New Source Performance Standards 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

1. The BPT emission limits for Seasonal Unit #1, Seasonal Unit #2 and Seasonal Unit #3 are based on the following:

- PM/PM₁₀ - 0.12 lb/MMBtu, from 06-096 C.M.R. ch. 103
- 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)
- Visible Emissions - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the three Seasonal Unit generators are the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Seasonal Unit #1 (16.9 MMBtu/hr) Distillate Fuel	2.03	2.03	0.03	74.53	16.06	5.92
Seasonal Unit #2 (16.9 MMBtu/hr) Distillate Fuel	2.03	2.03	0.03	74.53	16.06	5.92
Seasonal Unit #3 (7.2 MMBtu/hr) Distillate Fuel	0.86	0.86	0.01	31.75	6.84	2.52

Visible emissions from each emergency generator firing distillate fuel shall not exceed 20% opacity on a six minute block average basis.

2. 40 CFR Part 60, Subpart III

The federal regulation 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to the emergency engines listed above since the units were ordered after July 11, 2005, and manufactured after April 1, 2006. [40 CFR § 60.4200] By meeting

the requirements of Subpart IIII, the units also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ. [40 CFR § 63.6590(c)]

Emergency Engine Designation and Operating Criteria

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

a. Emergency Situation Operation (On-Site)

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

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

b. Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for Maintenance Checks, Readiness Testing, and other non-emergency situations as described below.

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

the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.

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

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, 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.

c. 40 CFR Part 60, Subpart III Requirements

- (1) Manufacturer Certification Requirement

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

- (2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engines 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 each engine. [40 CFR § 60.4209(a)]

- (4) Operation and Maintenance Requirements

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by L.L. Bean, Inc. that are approved by the engine manufacturer. L.L. Bean, Inc. 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 emergency engines, the units shall each be limited to 100 hours per year for maintenance checks and readiness testing. Up to 50 hours per year of the 100 hours per 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 under Subpart IIII for emergency engines. [40 CFR § 60.4214(b)]

(7) Recordkeeping

L.L. Bean, Inc. shall keep records that detail the maintenance conducted on each emergency engine. The hours of operation for each engine shall be recorded based on the readings taken from the non-resettable hour meters. The documentation shall also include the reasons for operation, whether it was for emergency or non-emergency purposes, and the explanation used to classify the operations as emergency or non-emergency. Records shall include the date, start time and end time for each period of emergency engine operation for these purposes.

3. Emergency generator OFC-GEN-EXP07-06 was manufactured in 2007, has an engine rated at 120.7 HP (0.5 MMBtu/hr) and fires on natural gas. The federal regulation 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)* is not applicable to this emergency generator engine because even though the unit engine is rated higher than 25 HP and was ordered after June 12, 2006, it was installed prior to January 1, 2009. [40 CFR § 60.4230(a)(4)(iv)]

BPT Findings

The BPT emission limits for natural gas fired generator OFC-GEN-EXP07-06 are based on the following:

PM/PM ₁₀	- 0.0.00008 lb/MMBtu, from AP-42, Section 3.2-2 (dated 7/2000)
SO ₂	- 0.00059 lb/MMBtu, from AP-42, Section 3.2-2 (dated 7/2000)
NO _x	- 4.08 lb/MMBtu, from AP-42, Section 3.2-2 (dated 7/2000)
CO	- 0.557 lb/MMBtu, from AP-42, Section 3.2-2 (dated 7/2000)
VOC	- 0.118 lb/MMBtu, from AP-42, Section 3.2-2 (dated 7/2000)
Visible Emissions	- 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for generator OFC-GEN-EXP07-06 are the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
OFC-GEN-EXP07-06 (0.50 MMBtu/hr) Natural gas	0.01	0.01	0.01	2.04	0.28	0.06

Visible emissions from this natural gas generator shall not exceed 10% opacity on a six-minute block average basis.

E. Annual Emissions

1. Total Annual Emissions

L.L. Bean, Inc. shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits for the boilers were calculated based their annual maximum potential to emit. The tons per year limits for the emergency generators and fire pump were based on an operating hour limit of 100 hours per year for each of the permanently installed emergency engines, and an operating hour limit of 100 hours per year for each of the three seasonal generators.

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

Unit	PM	PM₁₀	SO₂	NO_x	CO	VOC
All Boilers	5.36	5.36	0.06	10.40	8.74	0.57
Generators Natural Gas	0.01	0.01	0.01	0.20	0.03	0.01
Generator and Fire Pump Distillate Fuel, Exempt from Subpart IIII	0.04	0.04	0.01	1.11	0.24	0.09
Seasonal Generators Distillate Fuel, Subject to Subpart IIII	0.25	0.25	0.01	9.04	1.95	0.72
Total TPY	5.7	5.7	0.1	20.8	11.0	1.4

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 C.M.R. ch. 100, 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 fuel use limit;
- the operating hour restrictions on the emergency generators and fire pump;
- 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 at this time.

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

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

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-764-71-H-R/A subject to the following conditions:

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]

- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 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 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 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 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**
OFC-ARU #1, OFC-ARU #2, OFC-ARU #5, OFC-ARU #9, OFC-ARU #10, OFC-ARU #11, OFC-ARU #12, OFC/S-ARU #1, OFC/S-ARU #2, DRS-BLR #1 and DRS-BLR #2
- A. The boilers shall be fired on natural gas.

B. Emissions from the boilers shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
All Boilers	PM	0.05	06-096 C.M.R. ch. 115, BPT

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

<u>Emission 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>
OFC-ARU #1	0.12	0.12	0.01	0.24	0.20	0.01
OFC-ARU #2	0.06	0.06	0.01	0.12	0.10	0.01
OFC-ARU #5	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #9	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #10	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #11	0.09	0.09	0.01	0.18	0.15	0.01
OFC-ARU #12	0.09	0.09	0.01	0.18	0.15	0.01
OFC/S-ARU #1	0.12	0.12	0.01	0.24	0.20	0.01
OFC/S-ARU #2	0.19	0.19	0.01	0.38	0.32	0.02
DRS-BLR #1	0.13	0.13	0.01	0.25	0.21	0.01
DRS-BLR #2	0.13	0.13	0.01	0.25	0.21	0.01

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

(17) **Generators and Emergency Engines – Pre-2006**
 OFC-CAT, OFC-ONAN and Fire Pump DDR-CUM-FP

- A. Each of the emergency generators listed in this section, as well as the listed fire pump, shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]
- B. L.L. Bean, Inc. shall keep records that detail the maintenance conducted on each emergency engine. The hours of operation for each engine shall be recorded based on the readings taken from the non-resettable hour meters. The documentation shall also include the reasons for operation, whether it was for emergency or non-emergency purposes, and the explanation used to classify the operations as emergency or non-emergency. Records shall include the date, start time and end time for each period of emergency engine operation for these purposes. [06-096 C.M.R. ch. 115, BPT]

- C. The fuel sulfur content for Generators OFC-CAT and Fire Pump DDR-CUM-FP 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 C.M.R. ch. 115 BPT]
- D. Generator OFC-ONAN shall be fired on natural gas.
- E. Emissions from the specified units shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
OFC-CAT	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)

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

<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>
OFC-CAT (4.20 MMBtu/hr) Distillate Fuel	0.50	0.50	0.01	18.52	3.99	1.47
DDR-CUM-FP (0.84 MMBtu/hr) Distillate Fuel	0.26	0.26	0.01	3.70	0.80	0.29
OFC-ONAN (0.50 MMBtu/hr) Natural Gas	0.01	0.01	0.01	2.04	0.28	0.06

G. Visible Emissions

1. Visible emissions from the distillate fuel-fired generator and the fire pump shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
 2. Visible emissions from the natural gas fired generator shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
- H. The emergency generators and the fire pums are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available 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. [06-096 C.M.R. 115, BPT]

(18) Generators - Emergency Engines– Post-2006

OFC-GEN-EXP07-06, Seasonal Unit #1, Seasonal Unit #2 and Seasonal Unit #3

- A. Emergency generator OFC-GEN-EXP07-06 shall be limited to 100 hours of operation per calendar year for maintenance checks and readiness testing, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT].
- B. Each of the seasonal emergency generators Seasonal Unit #1, Seasonal Unit #2 and Seasonal Unit #3 shall be limited to 100 hours per year of operation for maintenance checks and readiness testing. They shall only be operated between November 1st and December 31st of each calendar year. [06-096 C.M.R. ch. 115, BPT]
- C. Emissions from the specified units shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Seasonal Unit #1	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)
Seasonal Unit #2	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)
Seasonal Unit #3	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
OFC-GEN-EXP07-06 (0.50 MMBtu/hr) Natural Gas	0.01	0.01	0.01	2.04	0.28	0.06
Seasonal Unit #1 (16.9 MMBtu/hr) Distillate Fuel	2.03	2.03	0.03	74.53	16.06	5.92
Seasonal Unit #2 (16.9 MMBtu/hr) Distillate Fuel	2.03	2.03	0.03	74.53	16.06	5.92
Seasonal Unit #3 (7.2 MMBtu/hr) Distillate Fuel	0.86	0.86	0.01	31.75	6.84	2.52

E. Visible Emissions

1. Visible emissions from each of the distillate fuel-fired generators shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]
2. Visible emissions from the natural gas generator shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

F. The distillate fired generators shall meet the applicable requirements of 40 CFR Part 60, Subpart III, including the following:

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 CFR § 60.4205(b)]

2. Ultra-Low Sulfur Fuel

The fuel fired in the engines 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 C.M.R. ch. 115]

3. Non-Resettable Hour Meter

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

4. Annual Time Limit for Maintenance and Testing

a. As emergency engines, the units shall each be limited to 100 hours per year for maintenance checks and readiness testing. Up to 50 hours per year of the 100 hours per 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) of all engine operating hours. [40 CFR § 60.4211(f) and 06-096 C.M.R. ch. 115]

b. L.L. Bean, Inc. shall keep records that detail the maintenance conducted on each emergency engine. The hours of operation for each engine shall be recorded based on the readings taken from the non-resettable hour meters. The documentation shall also include the reasons for operation, whether it was

for emergency or non-emergency purposes, and the explanation used to classify the operations as emergency or non-emergency. Records shall include the date, start time and end time for each period of emergency engine operation for these purposes.

5. Operation and Maintenance

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

- (19) L.L. Bean, Inc. 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 23 DAY OF March, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 09/11/2015

Date of application acceptance: 09/25/2015

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

