



DEPARTMENT ORDER

L.L. Bean, Inc.
Casco Street Campus
Cumberland County
Freeport, Maine
A-59-71-M-R/M (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. (L.L. Bean) has applied to renew their Air Emission License for the operation of emission sources associated with their Casco Street Campus facility.

L.L. Bean has also requested that their air emission license be updated to accurately reflect the inventory of licensed emission equipment located at the Casco Street Campus facility.

The equipment addressed in this license is located at 15 Casco Street in Freeport, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type, % sulfur	Maximum Firing Rate	Date of Manuf.	Date of Install.	Stack #
TYBLR #1	6.50	Distillate fuel, 0.05% sulfur Natural gas	46 gal/hr 6200 scf/hr	1993	1993	TYBLR #1
TYBLR #2	6.50	Distillate fuel, 0.05% sulfur Natural gas	46 gal/hr 6200 scf/hr	1993	1993	TYBLR #2

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Maximum Firing Rate</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
TYBLR #3	6.50	Distillate fuel 0.05% sulfur Natural gas	46 gal/hr 6200 scf/hr	1993	1993	TYBLR #3
CSOC BLR #1	1.75	Natural gas	1700 scf/hr	2010	2011	CSOC BLR #1
CSOC BLR #2	1.75	Natural gas	1700 scf/hr	2010	2011	CSOC BLR #2

Generators

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Output Capacity (kW)</u>	<u>Fuel Type, % sulfur</u>	<u>Firing Rate (gal/hr)</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>	<u>Stack #</u>
TY CAT #1	7.70	750	Distillate fuel, 0.0015% sulfur	55 gal/hr	1990	1991	TY CAT #1
TY CAT #2	7.70	750	Distillate fuel, 0.0015% sulfur	55 gal/hr	1990	1991	TY CAT #2
CSOC CAT #3	1.20	100	Distillate fuel, 0.0015% sulfur	8.75 gal/hr	1995	1995	CSOC CAT #3
LLB CAT #4	1.20	100	Distillate fuel, 0.015% sulfur	8.75 gal/hr	2000	2000	LLB CAT #4
CRC CAT	1.20	100	Distillate fuel, 0.0015% sulfur	8.75 gal/hr	1986	1986	CRC CAT

In addition, L.L. Bean operates several direct fired roof top units for building heating that are below the 1.0 MMBtu/hr licensing threshold. Therefore, these units are considered insignificant per *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

C. Definitions

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

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

D. 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 application for L.L. Bean 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 *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

This application also updates the inventory of installed equipment at this facility, taking into account the removal from service of old equipment. Removal of equipment from this license does not result in increased emissions of any pollutant from the facility. Therefore, this elimination of retired equipment is determined to be a minor modification and is being processed as such.

With the operating hour restriction 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 restriction 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. Facility Description

The L.L. Bean Casco Street Campus consists of three buildings which are used to support the retail business. This campus includes offices, maintenance shops, a shipping and receiving center and a warehouse.

C. Boilers TY BLR #1, TY BLR #2 and TY BLR #3

Boilers TY BLR #1, TY BLR #2 and TY BLR #3 are located at the Casco Street Campus where they are used to provide heat for the facility. They were all manufactured and installed in 1993, and each boiler is capable of firing on either distillate fuel or natural gas. Each boiler has a maximum heat input rating of 6.5 MMBtu/hr and exhausts through its own individual stack.

1. BPT Findings

The BPT emission limits for the boilers when firing distillate fuel were based on the following:

Distillate Fuel

PM/PM ₁₀	–	0.12 lb/MMBtu, based on 06-096 C.M.R. ch. 103
SO ₂	–	based on firing distillate fuel with a maximum sulfur content of 0.05% by weight
NO _x	–	20 lb/1000 gal, based on AP-42 Table 1.3-1 dated 5/10
CO	–	5 lb/1000 gal, based on AP-42 Table 1.3-1 dated 5/10
VOC	–	0.34 lb/1000 gal, based on AP-42 Table 1.3-3 dated 5/10
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for the boilers when firing natural gas were based on the following:

Natural Gas

PM/PM ₁₀	–	0.05 lb/MMBtu, based on 06-096 C.M.R. ch. 115, BPT
SO ₂	–	0.6 lb/MMscf, based on AP-42 Table 1.4-2 dated 7/98
NO _x	–	100 lb/MMscf, based on AP-42 Table 1.4-1 dated 7/98
CO	–	84 lb/MMscf, based on AP-42 Table 1.4-1 dated 7/98
VOC	–	5.5 lb/MMscf, based on AP-42 Table 1.4-2 dated 7/98
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

For boilers TY BLR #1, TY BLR #2 and TY BLR #3 the BPT emission limits are as follows:

Unit	Pollutant	lb/MMBtu
TY BLR #1, TY BLR #2 and TY BLR #3 Distillate Fuel	PM	0.12
TY BLR #1, TY BLR #2 and TY BLR #3 Natural Gas	PM	0.05

Unit	Fuel	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
TY BLR #1 6.5 MMBtu/hr	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03
TY BLR #2 6.5 MMBtu/hr	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03
TY BLR #3 6.5 MMBtu/hr	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03

Visible emissions from each of the boilers while firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis.

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

Fuel Sulfur Content Requirements

TY BLR #1, TY BLR #2 and TY BLR #3 are licensed to fire distillate fuel with a sulfur content of 0.05% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in boilers TY BLR #1, TY BLR #2 and TY BLR #3 shall not exceed 0.0015% by weight (15 ppm).

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

Because boilers TY BLR #1, TY BLR #2 and TY BLR #3 are each rated at less than 10 MMBtu/hr of heat input, they are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Boilers TY BLR #1, TY BLR #2 and TY BLR #3 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. These units are considered to be existing oil boilers. [40 C.F.R. §§ 63.11193 and 63.11195]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A “gas-fired boiler” is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 C.F.R. § 63.11237]

Boilers TY BLR #1, TY BLR #2 and TY BLR #3 are being licensed to fire both distillate fuel and natural gas, so they are not “gas-fired boilers” and are therefore subject to 40 C.F.R. Part 63, Subpart JJJJJ.

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA; however, L.L. Bean is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 C.F.R. § 63.11225(a)(2)]. A paper submission was sent to the EPA on September 6, 2011.

(2) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) 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 or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with Less Frequent Tune-up Requirements"	Every 2 years

[40 C.F.R. § 63.11223(a) and Table 2]

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

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

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, 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)]

(v) After conducting the initial boiler tune-up, a Notification of Compliance Status was due to be submitted to EPA. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(b)]

(3) Compliance Report

A compliance report shall be prepared by March 1st biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
 - 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - 2. "No secondary materials that are solid waste were combusted in any affected unit."
 - 3. "This facility complies with the requirement in 40 C.F.R. § 63.11214(d) to conduct a tune-up of each applicable boiler according to 40 C.F.R. § 63.11223(b)."

b. Recordkeeping

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

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) 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;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) 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.

EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

D. Boilers CSOC BLR #1 and CSOC BLR #2

Boilers CSOC BLR #1 and CSOC BLR #2 are located at the Casco Street Campus where they are used to provide heat for the facility. They were both manufactured in 2010 and installed in 2011, and each boiler fires natural gas exclusively. Each boiler has a maximum heat input rating of 1.75 MMBtu/hr and exhausts through its own individual stack.

1. BPT Findings

The BPT emission limits for boilers CSOC BLR #1 and CSOC BLR #2 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

The BPT emission limits for the boilers are the following:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
CSOC BLR #1 1.8 MMBtu/hr Natural Gas	0.09	0.09	Negligible	0.17	0.14	0.01
CSOC BLR #2 1.8 MMBtu/hr Natural Gas	0.09	0.09	Negligible	0.17	0.14	0.01

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

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

Because these boilers are each rated at less than 10 MMBtu/hr of heat input, they are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40(c)]

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

Boilers CSOC BLR #1 and CSOC BLR #2 are gas-fired boilers and are therefore exempt from 40 C.F.R. Part 63, Subpart JJJJJ. [40 C.F.R. § 63.11195(e)]

E. Generators TY CAT #1, TY CAT #2, CSOC CAT #3, LLB CAT #4 and CRC CAT

L.L. Bean operates the five emergency generators listed below:

Unit	Maximum Heat Input Capacity (MMBtu/hr)	Output Capacity (kW)	Date of Manufacture	Date of Installation
TY CAT #1	7.70	750	1990	1991
TY CAT #2	7.70	750	1990	1991
CSOC CAT #3	1.20	100	1995	1995
LLB CAT #4	1.20	100	2000	2000
CRC CAT	1.20	100	1986	1986

These emergency generators are generator sets, with each set consisting of an engine and an electrical generator. Each generator engine fires distillate fuel and exhausts through its own individual stack.

1. BPT Findings

The BPT emission limits for generators TY CAT #1 and TY CAT #2 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 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
- Visible Emissions - 06-096 C.M.R. ch. 101

The BPT emission limits for engines TY CAT #1 and TY CAT #2 are the following:

Unit	Pollutant	lb/MMBtu
TY CAT #1 and TY CAT #2 Distillate Fuel	PM	0.12

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
TY CAT #1 7.7 MMBtu/hr Distillate Fuel	0.92	0.92	0.01	24.64	6.55	0.69
TY CAT #2 7.7 MMBtu/hr Distillate Fuel	0.92	0.92	0.01	24.64	6.55	0.69

The BPT emission limits for generators CSOC CAT #3, LLB CAT #4 and CRC CAT are based on the following:

- PM/PM₁₀ - 0.12 lb/MMBtu, from previous license A-59-71-K-R (September 22, 2010), BPT
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 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. 101

The BPT emission limits for generators CSOC CAT #3, LLB CAT #4 and CRC CAT are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
CSOC CAT #3, LLB CAT #4 and CRC CAT Distillate Fuel	PM	0.12

<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>
CSOC CAT #3 1.2 MMBtu/hr Distillate fuel	0.14	0.14	Negligible	5.29	1.14	0.42
LLB CAT #4 1.2 MMBtu/hr Distillate fuel	0.14	0.14	Negligible	5.29	1.14	0.42
CRC CAT 1.2 MMBtu/hr Distillate fuel	0.14	0.14	Negligible	5.29	1.14	0.42

Visible emissions from each of the five distillate fuel-fired emergency generators shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

Each of the emergency generators 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 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, L.L. Bean 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)

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

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ, is not applicable to 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 40 C.F.R. Part 63, 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 C.F.R. § 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 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements.

F. Paint Booths

There are two paint booths located at the Casco Street Campus. Their use has become infrequent over the years, and the painting activities inside them have been reduced to only those that can be completed using non-refillable aerosol cans. These painting activities emit less than 100 pounds of VOC per year, and are defined as insignificant per *Insignificant Activities*, 06-096 C.M.R. ch. 115, Appendix B, (B)(17). The paint booths are therefore not subject to licensing and are only being included in this document for purposes of completeness.

G. Annual Emissions

1. Total Annual Emissions

L.L. Bean shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based 8,760 hours per year of operation for the boilers, and 100 hours per year of run time for the emergency generators:

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

<u>UNITS</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
<u>BOILERS</u> TY BLR #1, TY BLR #2, TY BLR #3, CSOC BLR #4 and CSOC BLR #2	11.0	11.0	4.3	13.6	4.3	0.3
<u>GENERATORS</u> TY CAT #1, TY CAT #2, CSOC CAT #3, LLB CAT #4 and CRC CAT	0.1	0.1	Negligible	3.3	0.8	0.1
Total TPY	11.1	11.1	4.3	16.9	5.1	0.4

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 C.F.R. 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:

- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. 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-59-71-M-R/M subject to the following conditions.

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

STANDARD CONDITIONS

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

- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
[06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
[06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
[06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
- A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of 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 TY BLR #1, TY BLR #2 and TY BLR #3

A. Fuel

1. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.05% by weight. [06-096 C.M.R. ch. 115, BPT]
2. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
TY BLR #1, TY BLR #2 and TY BLR #3 Distillate Fuel	PM	0.12	06-096 C.M.R. ch. 103
TY BLR #1, TY BLR #2 and TY BLR #3 Natural Gas	PM	0.05	06-096 C.M.R. ch. 115, BPT

C. Emissions for boilers TY BLR #1, TY BLR #2 and TY BLR #3 shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

<u>Emission Unit</u>	<u>Fuel</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>
TY BLR #1	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03
TY BLR #2	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03
TY BLR #3	Distillate Fuel	0.78	0.78	0.33	0.92	0.23	0.02
	Natural Gas	0.33	0.33	0.004	0.62	0.52	0.03

D. Visible emissions from boilers TY BLR #1, TY BLR #2 and TY BLR #3 while firing on distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]

Visible emissions from boilers TY BLR #1, TY BLR #2 and TY BLR #3 while firing on natural gas shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101]

E. Boiler MACT (40 C.F.R. Part 63, Subpart JJJJJ) Requirements for TY BLR #1, TY BLR #2 and TY BLR #3 [incorporated under 06-096 C.M.R. ch. 115, BPT]

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 or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements"	Every 2 years

[40 C.F.R. § 63.11223(a) and Table 2]

b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

- (1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
- (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [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)]

c. 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 biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and 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 40 C.F.R. § 63.11214(d) to conduct a tune-up of each applicable boiler according to 40 C.F.R. § 63.11223(b)."

3. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:
 - a. Copies of notifications and reports with supporting compliance documentation;
 - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

(17) **Boilers CSOC BLR #1 and CSOC BLR #2**

A. Fuel

Boilers CSOC BLR #1 and CSOC BLR #2 shall only fire natural gas.

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
CSOC BLR #1 and CSOC BLR #2	PM	0.05	06-096 C.M.R. ch. 115, BPT

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
CSOC BLR #1	0.09	0.09	0.17	0.14	0.01
CSOC BLR #2	0.09	0.09	0.17	0.14	0.01

D. Visible Emissions

Visible emissions from boilers CSOC BLR #1 and CSOC BLR #2 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(18) **Generators TY CAT #1, TY CAT #2, CSOC CAT #3, LLB CAT #4 and CRC CAT**

A. Each of the emergency generators 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 shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, including what classified the operation as emergency, and the number of hours each unit operated for non-emergency purposes. [06-096 C.M.R. ch. 115, BPT]

C. If the engines are operated to supply power during a non-emergency situation as part of a financial arrangement with another entity, L.L. Bean 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 C.M.R. ch. 115, BPT]

D. The fuel sulfur content for Generators TY CAT #1, TY CAT #2, CSOC CAT #3, LLB CAT #4 and CRC CAT 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]

E. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
TY CAT #1, and TY CAT #2,	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
CSOC CAT #3, LLB CAT #4 and CRC CAT	PM	0.12	A59-71-K-R (September 22, 2010), BPT

F. Emissions 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)
TY CAT #1 7.7 MMBtu/hr Distillate fuel	0.92	0.92	0.01	24.64	6.55	0.69
TY CAT #2 7.7 MMBtu/hr Distillate fuel	0.92	0.92	0.01	24.64	6.55	0.69
CSOC CAT #3 1.2 MMBtu/hr Distillate fuel	0.14	0.14	--	5.29	1.14	0.42
LLB CAT #4 1.2 MMBtu/hr Distillate fuel	0.14	0.14	--	5.29	1.14	0.42
CRC CAT 1.2 MMBtu/hr Distillate fuel	0.14	0.14	--	5.29	1.14	0.42

G. Visible Emissions

Visible emissions from each of the distillate fuel-fired generators shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 C.M.R. ch. 101]

H. 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.

L.L. Bean, Inc.
Casco Street Campus
Cumberland County
Freeport, Maine
A-59-71-M-R/M (SM)

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

- (19) L.L. Bean 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 25 DAY OF March, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone 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: September 11, 2015
Date of application acceptance: September 25, 2015

Date filed with the Board of Environmental Protection:

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

