



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION | AUGUSTA, MAINE 04333-0017
DEPARTMENT ORDER

**Bowdoin College
Cumberland County
Brunswick, Maine
A-76-71-AN-A**

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

Findings of Fact

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

I. Registration

A. Introduction

Bowdoin College (Bowdoin) was issued Air Emission License A-76-71-AL-R/A on December 10, 2025, for the operation of emission sources associated with their educational facility.

This license amendment completes the processing of applications with the following submission numbers as assigned by the Department: 603188 (accepted 04/10/2026) and 603542 (accepted 06/05/2026).

The equipment addressed in this license amendment are located at 63 Federal Street and 13 South Street on the campus of Bowdoin College, with a mailing/primary address of 3800 College Station, Brunswick, Maine.

Bowdoin has requested an after-the-fact amendment to their license in order to add a 125 kW emergency generator that fires natural gas.

Bowdoin has also requested an amendment to replace the emergency generator at Thorne Dining Hall at 13 South Street with a like-size generator, firing natural gas instead of distillate fuel.

B. Emission Equipment

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

Stationary Engines

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate	Date of Manuf.	Date of Install.
Stowe Inn Generator	1.71 MMBtu/hr	125 kW	Natural Gas	1,678 scf/hr	2023	2025
Thorne Dining Generator ^A	4.9 MMBtu/hr	400 kW	Natural Gas	4,808 scf/hr	10/02/2025	2026
Thorne Dining Generator ^B	3.99 MMBtu/hr	400 kW	Distillate Fuel	29.1 gal/hr	2000	2000

^A New to the license

^B Removed from the license

C. Definitions

Records or Logs mean either hardcopy or electronic records.

D. Application Classification

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

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emissions” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (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 Emissions Levels
PM	9.5	9.5	-	100
PM ₁₀	9.5	9.5	-	100
PM _{2.5}	9.5	9.5	-	100
SO ₂	0.2	0.2	-	100
NO _x	26.7	27.2	+0.5	100
CO	12.5	12.4	-0.1	100

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emissions Levels
VOC	1.4	1.3	-0.1	50*

* Bowdoin is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emissions level for VOC is 50 tpy.

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

E. Facility Classification

With the annual fuel limit on the boilers and the operating hours restriction on the generators, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because Bowdoin is subject to license restrictions that keep facility emissions below major source thresholds for NO_x; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. **Best Practical Treatment (BPT)**

A. Introduction

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

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

B. Stowe Inn Generator and Thorne Dining Generator

Bowdoin is licensing an after-the-fact emergency generator, the Stowe Inn Generator. The Stowe Inn Generator is a generator set consisting of an engine and an electrical generator. The Stowe Inn Generator has an engine rated at 1.71 MMBtu/hr which fires natural gas. The Stowe Inn Generator was manufactured in 2023 and installed in 2025.

Bowdoin is also licensing a replacement emergency generator. The Thorne Dining Generator was damaged, so that distillate fuel-fired generator is being replaced by a natural gas-fired generator with nearly the same heat input capacity. The new Thorne Dining Generator is a generator set consisting of an engine and an electrical generator. The Thorne Dining Generator has an engine rated at 4.9 MMBtu/hr which fires natural gas and was manufactured in 2025.

1. BACT Findings

Following is a BACT analysis for control of emissions from the Stowe Inn and Thorne Dining Generators.

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

Bowdoin has proposed to burn only natural gas in the Stowe Inn and Thorne Dining Generators. Additional add-on pollution controls are not economically feasible for units of this size.

BACT for PM/PM₁₀/PM_{2.5} emissions from the Stowe Inn and Thorne Dining Generators is the use of natural gas and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

Bowdoin has proposed to fire only natural gas, an inherently low sulfur content fuel. The use of natural gas results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from the Stowe Inn and Thorne Dining Generators is the use of natural gas and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

Bowdoin considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR).

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. Both methods include injection of a NO_x reducing agent, typically ammonia or urea, into the engine combustion gases, where the reagent reacts with NO_x to form nitrogen and water. Each technology is effective within a specific temperature range, 500 – 1,200 °F for SCR and 1,400 – 1,600 °F for SNCR. However, both SCR and SNCR have the negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than the Stowe Inn and Thorne Dining Generators.

BACT for NO_x emissions from the Stowe Inn and Thorne Dining Generators is the proper operation of each engine and the emission limits listed in the tables below.

- d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)
 Bowdoin considered several control strategies for the control of CO and VOC including oxidation catalysts and thermal oxidizers.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the engines in question. These controls were determined to be economically infeasible.

BACT for CO and VOC emissions from the Stowe Inn and Thorne Dining Generators are the proper operation of each engine and the emission limits listed in the tables below.

- e. Emission Limits
 The BACT emission limits for the Stowe Inn and Thorne Dining Generators are based on the following:

Natural Gas

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu 06-096 C.M.R. ch. 115, BACT
- SO₂ – 5.88E-4 lb/MMBtu from AP-42 Table 3.2-2 dated 10/24
- NO_x – 4.08 lb/MMBtu from AP-42 Table 3.2-2 dated 10/24
- CO – 0.317 lb/MMBtu from AP-42 Table 3.2-2 dated 10/24
- VOC – 0.118 lb/MMBtu from AP-42 Table 3.2-2 dated 10/24
- Visible Emissions– 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the Stowe Inn and Thorne Dining Generators are the following:

Unit	Pollutant	lb/MMBtu
Thorne Dining Generator	PM	0.05

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Stowe Inn Generator	0.09	0.09	0.09	-	6.98	0.54	0.20
Thorne Dining Generator	0.25	0.25	0.25	-	19.99	1.55	0.58

Visible emissions from each of the Stowe Inn and Thorne Dining Generators shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to the Stowe Inn and Thorne Dining Generators. They are emergency generators powered by engines with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standards Requirements

For the Stowe Inn and Thorne Dining Generators, Bowdoin shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart JJJJ. [06-096 C.M.R. ch. 169, § 4(B)(1)]

b. Chapter 169 Stack Height Requirements

There are no stack height requirements in Chapter 169 applicable to the Stowe Inn and Thorne Dining Generators because they exhaust through their own stacks and their rated output is less than 1,000 brake horsepower (747 kilowatts) each. [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards

Standards of Performance for Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ is applicable to the Stowe Inn and Thorne Dining Generators since the units were ordered after June 12, 2006, and manufactured after January 1, 2009. [40 C.F.R. § 60.4230]

A summary of applicable federal 40 C.F.R. Part 60, Subpart JJJJ requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart JJJJ, 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 40 C.F.R. Part 60, Subpart JJJJ, resulting in the engine being subject to requirements of this subpart applicable to non-emergency engines.

(1) 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;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) 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.

- (i) 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.
- (ii) 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, 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.

[40 C.F.R. §§ 60.4243(d) and 60.4248]

b. 40 C.F.R. Part 60, Subpart JJJJ Requirements

(1) **Manufacturer Certification Requirement**

The Stowe Inn and Thorne Dining Generators shall each be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233] A Certificate of Conformity for each engine was supplied to the Department as part of the amendment application packages.

(2) **Non-Resettable Hour Meter Requirement**

A non-resettable hour meter shall be installed and operated on the Stowe Inn Generator and on the Thorne Dining Generator. [40 C.F.R. § 60.4237]

(3) **Operation and Maintenance Requirement**

Each engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Bowdoin that are approved by the engine manufacturer. Bowdoin may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

Bowdoin shall have available for review by the Department a copy of the manufacturers' written instructions or procedures developed by Bowdoin that are approved by the engine manufacturers for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(4) **Annual Time Limit for Maintenance and Testing**

As emergency engines, the Stowe Inn and Thorne Dining Generators shall each be limited to 100 hours/year for maintenance and testing. Each emergency engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours total allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power

as part of a financial arrangement with another entity. [40 C.F.R. § 60.4243(d)]

(5) Recordkeeping

Bowdoin shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4245(b)]

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

Pursuant to 40 C.F.R. § 63.6590(c), stationary spark ignition engines subject to regulations under 40 C.F.R. Part 60, Subpart JJJJ must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ. No further requirements apply for the Stowe Inn or the Thorne Dining Generators under Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

C. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Firing a combined total of 206,000 MMBtu/yr of distillate fuel in the Central Heating Plant Boilers #1 and #2 and the most conservative emission factor (for either natural gas or distillate fuel) for each pollutant;
- Firing the non-Central Heating Plant boilers/water heaters for a combined total of 50,000 MMBtu/yr;
- Operating the emergency generators for 100 hr/yr of non-emergency operation (each); and
- Operating the Smith Union Generator for 500 hr/yr.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC
Central Heating Plant Boilers #1 & #2	8.2	8.2	8.2	0.2	10.1	8.5	0.6
Non-Central Heating Plant Boilers	1.3	1.3	1.3	-	2.5	2.1	0.1
240 Main Street Generator	-	-	-	-	0.2	-	-
Bowdoin Warehouse Generator	-	-	-	-	0.7	0.1	0.1
Buck Fitness (aka Wellness Center)	-	-	-	-	0.2	-	-
Central Heat Plant Generator	-	-	-	-	0.6	0.1	0.1
Chamberlain Hall Generator	-	-	-	-	0.5	0.1	-
Druckenmiller Hall Generator	-	-	-	-	0.3	0.1	-
Farley Field House Generator	-	-	-	-	0.1	-	-
Federal Street Generator	-	-	-	-	0.2	-	-
H&L Library Generator	-	-	-	-	0.2	-	-
Harpswell Apartments Generator	-	-	-	-	0.6	0.1	0.1
Kanbar Hall Generator	-	-	-	-	0.5	0.1	-
Ladd House Generator	-	-	-	-	0.7	0.1	0.1
Memorial Hall Generator	-	-	-	-	0.4	0.1	-
Mills Hall Generator	-	-	-	-	0.9	0.2	-
Moulton Union Generator #1	-	-	-	-	0.4	-	-
Moulton Union Generator #2	-	-	-	-	0.6	0.1	0.1
Observatory Generator	-	-	-	-	0.3	0.1	-
Park Row Generator	-	-	-	-	0.4	0.1	-
Rhodes Hall Generator	-	-	-	-	0.3	-	-
Roux Hall Generator	-	-	-	-	0.4	-	-
Sills Hall Generator	-	-	-	-	0.2	-	-
Smith Union Generator	-	-	-	-	3.6	0.3	0.1
Stowe Hall Generator	-	-	-	-	0.2	-	-
Stowe Inn Generator	-	-	-	-	0.4	-	-
Thorne Dining Generator	-	-	-	-	1.0	0.1	-
Walker Art Museum Generator	-	-	-	-	0.4	-	-
Watson Ice Arena Generator	-	-	-	-	0.3	0.1	-
Total TPY	9.5	9.5	9.5	0.2	27.2	12.4	1.3

Pollutant	Tons/year
Single HAP	7.9
Total HAP	19.9

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
PM _{2.5}	15
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 amendment.

This determination is based on information provided by the applicant regarding the expected operation of the newly licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require Bowdoin to submit additional information and may require an ambient air quality impact analysis at that time.

Order

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-76-71-AN-A subject to the conditions found in Air Emission License A-76-71-AL-R/A and the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This

License Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

Specific Conditions

The following shall replace Condition (19) of Air Emission License A-76-71-AL-R/A:

(19) Emergency Generators

- A. The Stowe Inn and Thorne Dining Generators shall each fire only natural gas. [06-096 C.M.R. ch. 115, BACT]

The Bowdoin Warehouse Generator, Central Heating Plant Generator, Chamberlain Hall Generator, Druckenmiller Hall Generator, Harpswell Apartments Generator, Kanbar Hall Generator, Ladd House Generator, Memorial Hall Generator, Mills Hall Generator, Moulton Union Generator #2, Observatory Generator, Park Row Generator, and Watson Ice Arena Generator shall each fire only distillate fuel. [06-096 C.M.R. ch. 115, BPT]

The 240 Main Street Generator, Buck Fitness Generator, Farley Field House Generator, Federal Street Generator, H&L Library Generator, Moulton Union Generator #1, Rhodes Hall Generator, Roux Hall Generator, Sills Hall Generator, Stowe Hall Generator, and Walker Art Museum Generator shall each fire only natural gas. [06-096 C.M.R. ch. 115, BPT]

- B. 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]
- C. Bowdoin shall keep records that include maintenance conducted on each engine and the hours of operation of each engine, recorded through the non-resettable hour meter. Documentation for each unit shall include the number of hours operated for emergency purposes, the number of hours operated for non-emergency purposes, and the reason the engine was in operation each time. [06-096 C.M.R. ch. 115, BPT]
- D. The fuel sulfur content of any distillate fuel fired in the generators addressed in this license shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

E. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Bowdoin Warehouse Generator	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
Ladd House Generator	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
Mills Hall Generator	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)
Thorne Dining Generator	PM	0.05	06-096 C.M.R. ch. 115, BACT

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	PM_{2.5} (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
240 Main Street Generator	0.04	0.04	0.04	-	3.63	0.28	0.11
Bowdoin Warehouse Generator	0.36	0.36	0.36	-	13.41	2.89	1.09
Buck Fitness Generator	0.04	0.04	0.04	-	3.26	0.25	0.09
Central Heating Plant Generator	0.83	0.83	0.83	-	11.86	2.56	0.97
Chamberlain Hall Generator	0.64	0.64	0.64	-	9.08	1.96	0.74
Druckenmiller Hall Generator	0.48	0.48	0.48	-	6.84	1.47	0.56
Farley Field House Generator	0.03	0.03	0.03	-	2.53	0.20	0.07
Federal Street Generator	0.04	0.04	0.04	-	3.63	0.28	0.11
H&L Library Generator	0.04	0.04	0.04	-	3.26	0.25	0.09
Harpswell Apartments Generator	0.83	0.83	0.83	-	11.86	2.56	0.97
Kanbar Hall Generator	0.65	0.65	0.65	-	9.26	2.00	0.76
Ladd House Generator	0.36	0.36	0.36	-	13.41	2.89	1.09
Memorial Hall Generator	0.56	0.56	0.56	-	7.98	1.72	0.65
Mills Hall Generator	0.66	0.66	0.66	0.01	17.50	4.65	0.49
Moulton Union Generator #1	0.09	0.09	0.09	-	7.22	0.56	0.21
Moulton Union Generator #2	0.81	0.81	0.81	-	11.55	2.49	0.94
Observatory Generator	0.35	0.35	0.35	-	4.94	1.06	0.40

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Park Row Generator	0.51	0.51	0.51	-	7.19	1.55	0.59
Rhodes Hall Generator	0.07	0.07	0.07	-	5.51	0.43	0.16
Roux Hall Generator	0.09	0.09	0.09	-	7.38	0.57	0.21
Sills Hall Generator	0.04	0.04	0.04	-	2.98	0.23	0.09
Stowe Hall Generator	0.05	0.05	0.05	-	3.88	0.30	0.11
Stowe Inn Generator	0.09	0.09	0.09	-	6.98	0.54	0.20
Thorne Dining Generator	0.25	0.25	0.25	-	19.99	1.55	0.58
Walker Art Museum Generator	0.09	0.09	0.09	-	7.22	0.56	0.21
Watson Ice Arena Generator	0.48	0.48	0.48	-	6.88	1.48	0.56

G. Visible Emissions

1. Visible emissions from the Chamberlain Hall Generator, Druckenmiller Hall Generator, and Memorial Hall Generator shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Bowdoin shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.
 - a. The duration of the startup shall not exceed 30 minutes per event;
 - b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
 - c. Bowdoin shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

[06-096 C.M.R. ch. 101, § 4(A)(4)]

2. Visible emissions standards from the other generators addressed in this license are the following:

Equipment	Visible Emissions Standard	Authority
Bowdoin Warehouse Generator, Central Heating Plant Generator, Harpswell Apartments Generator, Kanbar Hall Generator, Ladd House Generator, Mills Hall Generator, Moulton Union Generator #2, Observatory Generator, Park Row Generator, and Watson Ice Arena Generator	Visible emissions from each unit shall each not exceed 20% opacity on a six-minute block average basis.	06-096 C.M.R. ch. 101, § 4(A)(4)
240 Main Street Generator, Buck Fitness Generator, Farley Field House Generator, Federal Street Generator, H&L Library Generator, Moulton Union Generator #1, Rhodes Hall Generator, Roux Hall Generator, Sills Hall Generator, Stowe Hall Generator, Stowe Inn Generator, Thorne Dining Generator, and Walker Art Museum Generator	Visible emissions from each unit shall each not exceed 10% opacity on a six-minute block average basis.	06-096 C.M.R. ch. 115, BACT

H. Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden or 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 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. ch. 115, BPT]

I. The Bowdoin Warehouse Generator, Central Heating Plant Generator, Harpswell Apartments Generator, Kanbar Hall Generator, Ladd House Generator, Mills Hall Generator, Moulton Union Generator #2, Observatory Generator, Park Row Generator, and Watson Ice Arena Generator shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following: [incorporated under 06-096 C.M.R. chs. 115 and 169, BPT]

1. **Manufacturer Certification**

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

Bowdoin shall provide a copy of a Certificate of Compliance to the Department for the Kanbar Hall Generator once one is provided from the manufacturer. [40 C.F.R. § 60.4205(b) and 06-096 C.M.R. ch. 115, BACT]

2. **Ultra-Low Sulfur Fuel**

The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BPT]

3. **Non-Resettable Hour Meter**

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

4. **Annual Time Limit for Maintenance and Testing**

a. As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115, BPT]

b. Bowdoin shall keep records that include the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. **Operation and Maintenance**

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions. Bowdoin may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

Bowdoin shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

J. The 240 Main Street Generator, Buck Fitness Generator, Farley Field House Generator, Federal Street Generator, H&L Library Generator, Rhodes Hall Generator, Roux Hall Generator, Sills Hall Generator, Stowe Inn Generator, and Thorne Dining Generator shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. **Manufacturer Certification**

Each engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1.

2. **Non-Resettable Hour Meter**

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BPT]

3. **Annual Time Limit for Maintenance and Testing**

a. As emergency engines, each shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). The limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4243(d) and 06-096 C.M.R. ch. 115, BPT]

b. Bowdoin 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, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4245(b)]

4. Operation and Maintenance

Each engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Bowdoin that are approved by the engine manufacturer. Bowdoin may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

Bowdoin shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

Done and Dated in Augusta, Maine this 23rd day of JUNE, 2026.

Department of Environmental Protection

BY: _____

for Melanie Loyzim, Commissioner

The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-76-71-AL-R/A (issued 12/10/2025).

[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: April 10, 2026 and June 4, 2026

Date of application acceptance: April 10, 2026 and June 5, 2026

This Order prepared by Zac Hicks, Bureau of Air Quality.