



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

**The University of Maine System
Penobscot County
Orono, Maine
A-204-77-19-M**

**Departmental
Findings of Fact and Order
Air Emission License
NSR #19**

Findings of Fact

After review of the air emission license 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 (the Department) finds the following facts:

I. Registration

A. Introduction

Facility	The University of Maine System
License Type	06-096 C.M.R. ch. 115, Minor Revision
NAICS Codes	611310
Nature of Business	Educational Facility
Facility Location	5765 Service Building and throughout the Orono Campus

This license completes the processing of applications with the following submission number as assigned by the Department: 603824 (accepted 7/24/2026).

B. NSR License Description

The University of Maine (UMaine or the University) has requested a New Source Review (NSR) license to install and operate a new 14 kW emergency generator located at the Cutler Health Center.

C. Emission Equipment

The following equipment is addressed in this NSR license:

Generators/Engines

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Output	Fuel Type	Mfr. Date	Install. Date
Cutler Health Center Generator	0.20	193 scf/hr natural gas, 81 scf/hr LPG	14 kW	Natural gas, LPG	2026	2026

D. Definitions

Records or Logs mean either hardcopy or electronic records.

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 submitted by the University does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing, or recordkeeping requirements.

The proposed revision will not result in an emissions increase of greater than 4 tons/year of a single pollutant or 8 tons/year total pollutants, both excluding greenhouse gases. Therefore, the NSR license is determined to be a minor revision under *Minor and Major Source Air Emission License Regulations* 06-096 Code of Maine Rules (C.M.R.) ch. 115. The procedures found in 06-096 C.M.R. ch. 115 can be utilized to process this application since the proposed revision not prohibited by the Part 70 air emission license. An application to incorporate the requirements of this NSR license into the Part 70 air emission license has been submitted to the Department.

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 as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 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. Cutler Health Center Generator

The University has proposed the installation of a new stationary 14 kW emergency generator to be located at the Cutler Health Center. The emergency generator is a Kohler model 14RCA-QS7 equipped with a Kohler CH740 engine with the ability to fire natural gas and liquified petroleum gas (LPG).

1. BACT Findings

The BACT emission limits for the Cutler Health Center Generator are based on the following:

Natural Gas/LPG

PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
SO₂ – 0.000588 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
NO_x – 2.27 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
CO – 3.51 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
VOC – 0.03 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
Visible Emissions – 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for the Cutler Health Center Generator are the following:

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)
Cutler Health Center Generator	0.01	0.01	0.01	--	0.45	0.70	0.01

Visible emissions from the Cutler Health Center Generator shall not exceed 10% opacity on a six-minute block average basis.

The Department has determined that the BACT visible emission limit is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for the generator has been streamlined to the more

stringent BACT limit, and only this more stringent limit shall be included in the Order of this air emission license.

2. 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 emergency engine listed above since the units was 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 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. [40 C.F.R. § 60.4233]

(2) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4237]

(3) Operation and Maintenance Requirement

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

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

(4) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance and testing. The 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

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

C. Incorporation Into the Part 70 Air Emission License

Pursuant to *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140, § 1(C)(8), for a modification at the facility that has undergone NSR requirements or been processed through 06-096 C.M.R. ch. 115, the source must apply for an amendment to their Part 70 license within one year of commencing the proposed operations, as provided in 40 C.F.R. Part 70.5. An application to incorporate the requirements of this NSR license into the Part 70 air emission license has been submitted to the Department.

D. 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:

- 8,760 hours/year of operation for each of the Global Science Boilers and Small Boilers;
- 100 hours/year of operation for each emergency generator;
- 500 hours/year for each non-emergency generator;
- an annual No. 6 fuel oil use limit of 3,500,000 gallons per year based on a 12-month rolling total;
- up to 8,760 hours/year operation of Boilers #7 and #8 firing natural gas; and
- the established BPT for the Printing Services Department.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license, previously issued NSR licenses, and the facility's Part 70 license and amendments to that license.

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

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Steam Plant Boilers (#5, #6, #7, and #8)	26.3	26.3	136.5	144.4	157.5	26.3
Global Science Boiler #1	1.0	1.0	0.01	1.9	1.6	0.1
Global Science Boiler #2	1.0	1.0	0.01	1.9	1.6	0.1
Small Boilers (< 3.2 MMBtu/hr)	1.71	0.88	0.4	11.39	9.55	0.53
Portable Generator #2 (Model 3406C)	0.02	0.02	0.01	0.4	0.1	0.01
Hitchner Hall Generator	0.02	0.02	0.01	0.5	0.2	0.01
Aubert Hall Generator	0.02	0.02	0.01	0.5	0.1	0.01
Barrows Hall Generator	0.02	0.02	0.01	0.5	0.1	0.01
Alfond Arena Generator	0.01	0.01	0.01	0.1	0.03	0.01
Neville Hall Data Center Generator	0.01	0.01	0.01	0.9	0.1	0.01
Memorial Gym Generator	0.01	0.01	0.01	0.01	0.02	0.02
Wells Commons Generator	0.01	0.01	0.01	0.41	0.1	0.01
York Hall Generator	0.01	0.01	0.01	0.06	0.94	0.01
Estabrooke Hall Generator	0.01	0.01	0.01	0.01	0.71	0.01
Small Generators (<3 MMBtu/hr) firing natural gas/propane	0.01	0.01	0.01	1.23	1.91	0.01
Small Generators (<3 MMBtu/hr) firing distillate fuel	0.04	0.04	0.01	1.3	0.28	0.10
Recreation Center Generator	0.1	0.1	0.01	1.5	0.2	0.03
Hilltop Commons Generator	0.2	0.2	0.01	2.9	0.2	0.03
Collins Center Generator	0.1	0.1	0.01	1.3	0.4	0.02
Steam Plant Generator	--	--	--	0.115	--	--

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
EEDC Generator	0.01	0.01	--	0.01	0.06	0.01
GEM Generator	0.03	0.03	--	0.68	0.18	0.02
Printing Services	--	--	--	--	--	2.0
Total TPY	30.6	29.8	137.1	172.0	175.8	29.4

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. Ambient Air Quality Analysis

UMaine previously submitted an ambient air quality impact analysis outlined in air emission license A-204-77-3-A (dated June 9, 2011) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (AAQS). An additional ambient air quality impact analysis is not required for this NSR license.

Order

The Department hereby grants New Source Review Minor Revision A-204-77-19-M pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the specific conditions below.

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.

Specific Conditions

(1) Cutler Health Center Generator

- A. UMaine shall keep records of all maintenance conducted on the engine associated with the Cutler Health Center Generator.
[06-096 C.M.R. ch. 115, BACT]

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

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	PM_{2.5} (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Cutler Health Center Generator	0.01	0.01	0.01	--	0.45	0.70	0.01

C. Visible Emissions

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

D. The Cutler Health Center 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, BACT]

1. Manufacturer Certification

The 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 the engine.
[40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BACT]

3. Annual Time Limit for Maintenance and Testing

a. As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. 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, BACT]

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

4. Operation and Maintenance

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

UMaine 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, BACT]

(2) Additional Information

If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, UMaine may be required to submit additional information. Upon written request from the Department, UMaine shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

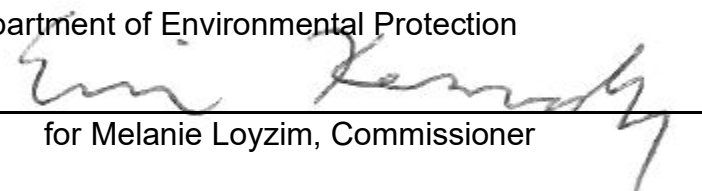
(3) **Approval to Construct**

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]

Done and Dated in Augusta, Maine this 21st day of SEPTEMBER, 2026.

Department of Environmental Protection

BY:


for Melanie Loyzim, Commissioner

Please note attached sheet for guidance on appeal procedures.

Date of initial receipt of application: July 24, 2026

Date of application acceptance: July 24, 2026

This Order prepared by Benjamin Goundie, Bureau of Air Quality.