



DEPARTMENT ORDER

**MaineHealth d/b/a Mid Coast Hospital
 Cumberland County
 Brunswick, Maine
 A-763-71-I-R/A**

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

FINDINGS OF FACT

After review of the air emission license renewal and 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

MaineHealth d/b/a Mid Coast Hospital (MaineHealth) has applied to renew their Air Emission License for the operation of emission sources associated with their healthcare facility. MaineHealth has requested an after-the-fact minor modification to their license in order to replace two boilers (Boilers #4 and #5).

The equipment addressed in this license is located at 123 Medical Center Dr, Brunswick, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1	10.5	10,460 scf/hr	Natural Gas	2000	2000	1
		74.7 gal/hr	Distillate Fuel			
Boiler #2	10.5	10,460 scf/hr	Natural Gas	2000	2000	1
		74.7 gal/hr	Distillate Fuel			
Boiler #3	10.5	10,460 scf/hr	Natural Gas	2000	2000	1
		74.7 gal/hr	Distillate Fuel			
Boiler #4 *	1.0	970.9 scf/hr	Natural Gas	2021	2021	4
Boiler #5 *	1.0	970.9 scf/hr	Natural Gas	2021	2021	5
Boiler #6	1.0	970.9 scf/hr	Natural Gas	2008	2009	6
Boiler #7	1.0	970.9 scf/hr	Natural Gas	2008	2009	7

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #4 **	1.0	970.9 scf/hr	Natural Gas	2000	2000	4
Boiler #5 **	1.0	970.9 scf/hr	Natural Gas	2000	2000	5
Furnace ***	0.4	4.75 gal/hr	Propane	2000	2000	2

* New to the license

** Removed from the license

*** Insignificant activity according to 06-096 C.M.R. ch. 115, Appendix B and is included for inventory purposes only.

Stationary Engine

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1	11.6 MMBtu/hr	1,250 kW	Distillate Fuel	85.2	2000	2000

C. Definitions

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.

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.

MaineHealth has applied to renew currently licensed emission units as well as modify their license as addressed in Section I(A) above.

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	6.6	12.0	+5.4	100
PM ₁₀	6.6	12.0	+5.4	100
PM _{2.5}	-	12.0	-	100
SO ₂	35.5	0.2	-35.3	100
NO _x	14.3	23.3	+9.0	100
CO	7.6	13.2	+5.6	100
VOC	0.7	0.9	+0.2	50*

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

Note: The large reduction in SO₂ was a result of converting from 0.5% sulfur content in distillate fuel to 0.0015% sulfur content in distillate fuel per current fuel availability requirements. [06-096 C.M.R. ch. 106, § 3(A)(2)] As a result, the fuel cap was removed, which caused an increase in the other pollutant's potential emissions.

Therefore, this license is considered to be both a renewal and a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules C.M.R. ch. 115.

E. Facility Classification

With the operating hours restriction on the emergency generator, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because MaineHealth 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.

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

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

B. Boilers #1 - #3

MaineHealth operates Boilers #1 - #3 for steam generation for heat. The boilers are rated at 10.5 MMBtu/hr each and can fire either natural gas or distillate fuel. The boilers were installed in 2000 and exhaust through a combined stack, Stack #1.

Boilers #1 - #3 are licensed to fire distillate fuel. With limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use in Boilers #1 - #3 shall not exceed 0.0015% by weight (15 ppm).

1. BPT Findings

The BPT emission limits for Boilers #1 - #3 were based on the following:

Distillate Fuel

- PM/PM₁₀/PM_{2.5} – 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- VOC – 0.34 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
- Visible Emissions – 06-096 C.M.R. ch. 101

Natural Gas

- PM/PM₁₀/PM_{2.5} – 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. 101

The BPT emission limits for Boilers #1 - #3 are the following:

Unit	Pollutant	lb/MMBtu
Boilers #1 - #3 <i>Natural Gas</i>	PM	0.05
Boilers #1 - #3 <i>Distillate Fuel</i>	PM	0.08

Unit	Fuel Type	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)
Boiler #1	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02
Boiler #2	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02
Boiler #3	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02

2. Visible Emissions

When distillate fuel is being fired in any of Boilers #1 - #3, visible emissions from Stack #1 shall not exceed 20% opacity on a six-minute block average basis.

During periods of time when only natural gas is being fired in Boilers #1 - #3, visible emissions from Stack #1 shall not exceed 10% opacity on a six-minute block average basis.

3. Periodic Monitoring

Periodic monitoring for Boilers #1 - #3 shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

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

Due to the size and year of manufacture, Boilers #1 - #3 are 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]

MaineHealth shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1 - #3 including, but not limited to, the following:

a. Notifications

MaineHealth shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boiler and the type of fuel to be combusted. [40 C.F.R. § 60.48c(a)] MaineHealth submitted this Notification to EPA on July 18, 2001.

b. Standards

Sulfur Dioxide (SO₂)

The fuel fired in Boilers #1 - #3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit shall be streamlined to the lower limit required by State statute.

c. Reporting and Recordkeeping

(1) MaineHealth shall maintain records of the amounts of each fuel combusted monthly for Boilers #1 - #3, with records of fuel certifications as the fuel is delivered. [40 C.F.R. § 60.48c(g)]

(2) MaineHealth shall maintain records required by Subpart Dc for a period of two years following the date of the record. [40 C.F.R. § 60.48c(i)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the two-year record retention requirement of Subpart Dc shall be streamlined to the more stringent six-year requirement.

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

Boilers #1 - #3 are not 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. Natural gas-fired units are exempt from the requirements of this regulation. [40 C.F.R. §§ 63.11195(e)]

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]

In order to maintain the classification of gas-fired boilers, MaineHealth may only fire distillate fuel in Boilers #1 - #3 during periods of gas curtailment or supply interruption

(as defined in 40 C.F.R. § 63.11237 “Period of gas curtailment or supply interruption”), startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours for each boiler during any calendar year.

C. Boilers #4 - #7

MaineHealth operates Boilers #4 - #7 for hot water for building heating. The boilers are rated at 1.0 MMBtu/hr each, and fire natural gas. Boilers #6 and #7 were installed in 2008 and exhaust through their own stacks, Stack #6 and #7, respectively. Boilers #4 and #5 are Cleaver Brooks ClearFire model boilers, which were installed in 2021 and exhaust through their own stacks, Stack #4 and #5, respectively.

1. BPT Findings

The BPT emission limits for Boilers #6 and #7 were based on the following:

Natural Gas

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu, 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. 101

The BPT emission limits for Boilers #6 and #7 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)
Boiler #6	0.05	0.05	0.05	-	0.10	0.08	0.01
Boiler #7	0.05	0.05	0.05	-	0.10	0.08	0.01

2. BACT Findings

Following is a BACT analysis for emissions from Boilers #4 and #5.

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

MaineHealth has proposed to burn only low-ash content fuel, natural gas, in the boilers. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀/PM_{2.5} emissions from Boilers #4 and #5 is the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

MaineHealth has proposed to fire only natural gas with a negligible sulfur content. The use of these fuels results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Boilers #4 and #5 is the use of natural gas and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

There are several control strategies for the control of NO_x from boilers including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), the purchase of high efficiency, low emission designed boilers, and proper operation and maintenance of the boilers.

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 boiler 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 Boilers #4 and #5.

The selected package boilers from Cleaver Brooks have sub 20 ppm NO_x emissions, as their standard package.

BACT for NO_x emissions from Boilers #4 and #5 is the use of a low NO_x package boiler system and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

MaineHealth 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 boiler in question. These controls were determined to be economically infeasible.

BACT for CO and VOC emissions from Boilers #4 and #5 is the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Boilers #4 and #5 were based on the following:

Natural Gas

PM/PM ₁₀ /PM _{2.5}	–	0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
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. 101

The BACT emission limits for Boilers #4 and #5 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)
Boiler #4	0.05	0.05	0.05	-	0.10	0.08	0.01
Boiler #5	0.05	0.05	0.05	-	0.10	0.08	0.01

3. Visible Emissions

Visible emissions from Boilers #4 - #7, each, shall not exceed 10% opacity on a six-minute block average basis.

4. Periodic Monitoring

Periodic monitoring for Boilers #4 - #7 shall include recordkeeping to document fuel use both on a monthly and calendar year total basis.

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

Due to the sizes of Boilers #4 - #7, 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]

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

Boilers #4 - #7 are not 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. Natural gas-fired units are exempt from the requirements of this regulation. [40 C.F.R. §§ 63.11195(e)]

D. Generator #1

MaineHealth operates Generator #1 as an emergency generator. Generator #1 is a generator set consisting of an engine and an electrical generator. Generator #1 has an engine rated at 11.6 MMBtu/hr, which fires distillate fuel and was manufactured in 2000.

1. BPT Findings

The BPT emission limits for Generator #1 are based on the following:

- PM/PM₁₀/PM_{2.5} – 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103
- SO₂ – Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x – 3.2 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
- CO – 0.85 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
- VOC – 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25
- Visible Emissions – 06-096 C.M.R. ch. 101

The BPT emission limits for Generator #1 are the following:

Unit	Pollutant	lb/MMBtu
Generator #1	PM	0.12

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.07	0.07	0.07	0.02	37.12	9.86	1.04

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time MaineHealth 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. MaineHealth 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.

Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Generator #1 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, MaineHealth shall keep records of the total hours of operation and the hours of emergency operation for Generator #1.

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 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. Chapter 169

Generator #1 was installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to section 1.

3. New Source Performance Standards (NSPS)

Due to the date of manufacture of Generator #1, the engine is 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 unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

4. 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 engine listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source. However, it is considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since it is categorized as a residential, commercial, or institutional emergency engine and it does not operate or are not contractually obligated to be available 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 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.

E. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

F. Fugitive Emissions

MaineHealth shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

MaineHealth shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

G. 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 operating Generator #1 for 100 hrs/yr of non-emergency operation and operating each boiler for 8,760 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	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
Boilers #1-3	11.0	11.0	11.0	0.2	19.7	11.3	0.7
Boilers #4-7	0.9	0.9	0.9	-	1.7	1.4	0.1
Generator #1	0.1	0.1	0.1	-	1.9	0.5	0.1
Total TPY	12.0	12.0	12.0	0.2	23.3	13.2	0.9

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.

This determination is based on information provided by the applicant regarding 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 MaineHealth 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 A-763-71-I-R/A 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 beginning actual 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] Payment of the annual air

emission license fee for MaineHealth is due by the end of May of each year.
[38 M.R.S. § 353-A(3)]

- (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 the written test report by the Department, or another alternative timeframe approved by the Department, 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 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]

- (16) The licensee 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). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Boilers #1 - #3**

A. Fuel

1. 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]
2. Compliance shall be demonstrated by fuel records 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. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, a statement from the supplier that the fuel delivered meets Maine’s fuel sulfur content standards, fuel supplier certification, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1 - #3 <i>Natural Gas</i>	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #1 - #3 <i>Distillate Fuel</i>	PM	0.08	06-096 C.M.R. ch. 115, BPT

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

Emission Unit	Fuel Type	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)
Boiler #1	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02
Boiler #2	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02
Boiler #3	Natural Gas	0.53	0.53	0.53	0.01	1.02	0.86	0.06
	Distillate Fuel	0.84	0.84	0.84	0.02	1.50	0.38	0.02

D. Visible Emissions

1. When firing only natural gas in Boilers #1 - #3, visible emissions from Stack #1 shall not exceed 10% opacity on a six-minute block average basis.
2. During periods of time when firing distillate fuel in any of Boilers #1 - #3, visible emissions from Stack #1 shall not exceed 20% opacity on a six-minute block average basis.

[06-096 C.M.R. ch. 101, §§ 4(A)(2), 4(A)(3), and 4(D)(1)]

- E. MaineHealth shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1 - #3 including, but not limited to, the following:

MaineHealth shall maintain records of the amounts of each fuel combusted during each calendar month. [40 C.F.R. § 60.48c(g)]

F. Operational Limitation

MaineHealth may only fire distillate fuel in Boilers #1 - #3 during periods of gas curtailment or supply interruption (as defined in 40 C.F.R. § 63.11237 “Period of gas curtailment or supply interruption”), startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours for each boiler during any calendar year. [06-096 C.M.R. ch. 115, BPT]

(18) **Boilers #4 - #7**

A. Fuel

Boilers #4 - #7 are licensed to fire natural gas.

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

Emission 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)
Boiler #4	0.05	0.05	0.05	-	0.10	0.08	0.01
Boiler #5	0.05	0.05	0.05	-	0.10	0.08	0.01
Boiler #6	0.05	0.05	0.05	-	0.10	0.08	0.01
Boiler #7	0.05	0.05	0.05	-	0.10	0.08	0.01

- C. Visible emissions from Boilers #4 - #7 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

(19) **Generator #1**

- A. Generator #1 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. MaineHealth 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 Generator #1 operated for emergency purposes, the number of hours Generator #1 operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]
- C. The fuel sulfur content for Generator #1 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]
- D. Emissions shall not exceed the following:

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

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.07	0.07	0.07	0.02	37.12	9.86	1.04

- F. Visible Emissions

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time MaineHealth shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

1. The duration of the startup shall not exceed 30 minutes per event;
2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
3. MaineHealth 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)]

- G. Emergency generators and/or fire pumps 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 and/or fire pumps 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]

(20) General Process Sources

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(21) Fugitive Emissions

- A. MaineHealth shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.
- B. MaineHealth shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

- (22)** 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, MaineHealth may be required to submit additional information. Upon written request from the Department, MaineHealth 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)]

DONE AND DATED IN AUGUSTA, MAINE THIS 15th DAY OF SEPTEMBER, 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, 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: August 15, 2025

Date of application acceptance: August 18, 2025

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