



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

DEPARTMENT ORDER

**Regional School Unit #14 –  
Raymond Campus  
Cumberland County  
Raymond, Maine  
A-1052-71-E-A**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #3**

**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**

Regional School Unit #14 – Raymond Campus (Raymond) was issued Air Emission License A-1052-71-B-R on November 21, 2016, for the operation of emission sources associated with their educational facility. The license was subsequently amended as follows:

<b>Amendment #</b>	<b>Date Issued</b>	<b>Brief Description</b>
A-1052-71-C-A	October 25, 2019	Replacing Boiler #1 with two new units
A-1052-71-D-M	November 9, 2022	Adding propane as a fuel for Boiler #2

The equipment addressed in this license amendment is located at 434 Webbs Mills Rd, Raymond, Maine.

Raymond has requested an amendment to their license in order to replace Boiler #2 at the Raymond Elementary School and its associated 12,000-gallon distillate fuel storage tank with two smaller propane-fired units, designated Boilers #2A and #2B. The Department is also including updated applicable requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 in this license amendment.

B. Emission Equipment

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

**Boilers**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1A	1.7	11.6 gal/hr	Distillate fuel	2019	2019	1
		18.3 gal/hr	Propane			
Boiler #1B	1.7	11.6 gal/hr	Distillate fuel	2019	2019	
		18.3 gal/hr	Propane			
Boiler #2A	2.0	22.1 gal/hr	Propane	2024	2024	2
Boiler #2B	2.0	22.1 gal/hr	Propane	2024	2024	
Boiler #2*	6.2	18.8 gal/hr	Distillate Fuel/Propane	1988	1988	2

\* This unit is being replaced and will be removed from this air emission license.

**Stationary Engines**

Equipment	Max. Input Capacity (MMBtu/hr)	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1 (JSMS)	1.0	Propane	387 scf/hr	2000	2000
Generator #2 (RES)	0.6	Distillate Fuel	4.2 gal/hr	1990	1990

**Fuel Storage**

Equipment	Capacity	Fuel Stored
RES Oil Tank *	12,000 Gallons	Distillate Fuel

\* This unit is being removed from this air emission license.

C. 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 Emission Levels
PM	3.4	2.2	-1.2	100
PM <sub>10</sub>	3.4	2.2	-1.2	100
PM <sub>2.5</sub>	3.4	2.2	-1.2	100
SO <sub>2</sub>	0.1	0.2	0.1	100
NO <sub>x</sub>	11.9	5.0	-6.9	100
CO	3.5	2.8	-0.7	100
VOC	0.5	0.5	0.0	50*

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

#### D. Facility Classification

The facility is licensed as follows:

- As a natural minor source of criteria pollutants, because no license restrictions are necessary to keep facility emissions below major source thresholds for criteria pollutants; 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. Boilers #2A and #2B

Boilers #2A and #2B are replacing Boiler #2 and will be used for heat. Boilers #2A and #2B are each rated at 2.0 MMBtu/hr and fire propane. The boilers will be installed in 2024, and the combined emissions will exhaust through the existing Stack #2.

1. BACT Findings

Raymond submitted a BACT analysis for control of emissions from Boilers #2A and #2B.

Emission Limits

The BACT emission limits for Boilers #2A and #2B were based on the following:

PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT  
SO<sub>2</sub> – 0.054 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08  
NO<sub>x</sub> – 13 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08  
CO – 7.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08  
VOC – 1 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08  
Visible – 06-096 C.M.R. ch. 101

Emissions

The BACT emission limits for Boilers #2A and #2B are the following:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2A	0.10	0.10	0.10	0.01	0.29	0.17	0.02
Boiler #2B	0.10	0.10	0.10	0.01	0.29	0.17	0.02

2. Visible Emissions

Visible emissions from Stack #2 shall not exceed 10% opacity on a six-minute block average basis.

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

Due to their size, Boilers #2A and #2B 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]

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

Boilers #2A and #2B 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.

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. [40 C.F.R. § 63.11195]

**C. Visible Emissions Limits Updates**

In 2023, the Department completed rulemaking on revisions to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101. The revised rule went into effect on January 1, 2024. The following updated standards will be incorporated into this amendment.

**1. Engines**

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from Generator #2 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup, during which time Raymond 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. Raymond 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.

[06-096 C.M.R. ch. 101 § 4(A)(4)]

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.

**2. General Process Emissions**

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)]

**3. Fugitive Emissions**

Raymond 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, examples of such reasonable precautions provided at 06-096 C.M.R. ch. 101, § 4(C).

Raymond 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)]

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:

- Operating the boilers for 8,760 hr/yr each;
- Operating the generators for 100 hrs/yr each.

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 <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boilers	2.1	2.1	2.1	0.1	4.6	2.7	0.4
Generator #1	--	--	--	--	0.3	--	--
<b>Total TPY</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>0.2</b>	<b>5.0</b>	<b>2.8</b>	<b>0.5</b>

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 <sub>10</sub>	25
PM <sub>2.5</sub>	15
SO <sub>2</sub>	50
NO <sub>x</sub>	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 the expected construction and operation of the proposed 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 Raymond 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-1052-71-E-A subject to the conditions found in Air Emission License A-1052-71-B-R, in amendments A-1052-71-C-A and A-1052-71-D-M, 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

Condition (16)(B) of Air Emission License A-1052-71-D-M is deleted.

The following shall replace Condition (16)(A), (C), and (D) of Air Emission License amendment A-1052-71-D-M:

(16) **Boilers #1A, #1B, and #2A, #2B**

A. Fuel

1. Boilers #1A and #1B are licensed to fire distillate fuel and propane.  
[06-096 C.M.R. ch. 115, BPT]
2. Boilers #2A and #2B are licensed to fire propane. [06-096 C.M.R. ch. 115, BACT]
3. 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]
4. Compliance shall be demonstrated by fuel records showing the type and the percent sulfur of the fuel delivered (if applicable). [06-096 C.M.R. ch. 115, BPT]

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

Emission Unit	Fuel	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	PM <sub>2.5</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1A	Distillate Fuel	0.13	0.13	0.13	neg	0.24	0.06	neg
	Propane	0.08	0.08	0.08	neg	0.24	0.14	0.02
Boiler #1B	Distillate Fuel	0.13	0.13	0.13	neg	0.24	0.06	neg
	Propane	0.08	0.08	0.08	neg	0.24	0.14	0.02
Boiler #2A	Propane	0.10	0.10	0.10	0.01	0.29	0.17	0.02
Boiler #2B	Propane	0.10	0.10	0.10	0.01	0.29	0.17	0.02

D. Visible emissions from Stack #2 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]



**The following shall replace Condition (17)(F) of Air Emission License A-1052-71-B-R:**

**(17) Emergency Generators #1 and #2**

**F. Visible Emissions**

1. Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]
2. Visible emissions from Generator #2 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Raymond 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. Raymond 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)]

**The following are new conditions of Air Emission License A-1052-71-B-R:**

**(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. Raymond 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.

**Regional School Unit #14 –  
Raymond Campus  
Cumberland County  
Raymond, Maine  
A-1052-71-E-A**

**10**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #3**

B. Raymond 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)]

DONE AND DATED IN AUGUSTA, MAINE THIS 19<sup>th</sup> DAY OF NOVEMBER, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for  
MELANIE LOYZIM, COMMISSIONER

**The term of this license amendment shall be concurrent with the term of Air Emission License A-1052-71-B-R (issued 11/21/2016).**

[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: 9/24/24

Date of application acceptance: 9/27/24

This Order prepared by Chris Ham, Bureau of Air Quality.