



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PAUL MERCER  
COMMISSIONER

**Kents Hill School  
Kennebec County  
Readfield, Maine  
A-786-71-F-M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
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 Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Kents Hill School (KHS) was issued Air Emission License A-786-71-E-N on December 23, 2015, permitting the operation of emission sources associated with their educational facility.

KHS has requested a minor revision to their license in order to change the licensed fuel sulfur content for Generator #1.

The equipment addressed in this license is located at 1614 Main Street, Readfield, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Generator**

<b>Equipment</b>	<b>Maximum Output Capacity (KW)</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Firing Rate (gal/hr)</b>	<b>Fuel Type, % Sulfur</b>	<b>Date of Manuf.</b>
Generator #1	500	4.9	35.0	Distillate fuel, 0.5%	2000

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

C. Definitions

Distillate Fuel means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396, diesel fuel oil numbers 1 or 2, as defined in ASTM D975, kerosene, as defined in ASTM D3699, biodiesel as defined in ASTM D6751, or biodiesel blends as defined in ASTM D7467.

D. Application Classification

This amendment will increase emissions by less than 4 ton/year for each single pollutant not including greenhouse gases (GHG) and less than 8 ton/year for all pollutants combined not including GHG. Therefore, this modification is determined to be a minor revision and has been processed as such.

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 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

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

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

B. Minor Revision Description

KHS has requested a minor revision to their license in order to change the licensed fuel sulfur content for the distillate fuel fired in Generator #1 from 0.0015% by weight to 0.5% by weight. Generator #1 shares a fuel tank with Boilers #1 and #2, which are currently licensed to fire distillate fuel with a maximum fuel sulfur content of 0.5% by weight. Normally the Department's policy is to require generators to fire distillate fuel with a maximum sulfur content of 0.0015% by weight, but in instances where the generator shares a fuel tank with distillate fuel-fired boilers, the Department's policy allows the generator to fire distillate fuel with the same sulfur content as the fuel fired in the boilers.

1. BPT Findings

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

- PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 103
- SO<sub>2</sub> - 0.5 lb/MMBtu based on combustion of distillate fuel with a maximum sulfur content not to exceed 0.5% sulfur by weight
- NO<sub>x</sub> - 3.2 lb/MMBtu from AP-42 dated 10/96
- CO - 0.85 lb/MMBtu from AP-42 dated 10/96
- VOC - 0.09 lb/MMBtu from AP-42 dated 10/96
- Opacity - 06-096 CMR 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 <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.59	0.59	2.47	15.68	4.17	0.44

Fuel Sulfur Content Requirements

Generator #1 is licensed to fire distillate fuel, which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S.A §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Generator #1 shall not exceed a sulfur content of 0.0015% by weight (15 ppm).

C. Annual Emissions

This amendment will not change the facility's licensed annual emissions or greenhouse gas totals.

**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-786-71-F-M subject to the conditions found in Air Emission License A-786-71-E-N and the following condition.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License Amendment 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.

**The following will replace Specific Condition (17)(D) and (17)(F) of Air Emission License A-786-71-E-N:**

**(17) Generator #1**

**D. Fuel**

1. Generator #1 is licensed to share a fuel tank with Boilers #1 and #2. [06-096 CMR 115, BPT]
2. Prior to July 1, 2018, KHS is licensed to fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight in Generator #1. [06-096 CMR 115, BPT]
3. Beginning July 1, 2018, KHS shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Generator #1. [06-096 CMR 115, BPT]
4. Compliance shall be demonstrated by fuel records from the supplier documenting the quantity, type, and sulfur content of the fuel delivered. [06-096 CMR 115, BPT]

F. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM<sub>10</sub></u> <u>(lb/hr)</u>	<u>SO<sub>2</sub></u> <u>(lb/hr)</u>	<u>NO<sub>x</sub></u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Generator #1	0.59	0.59	2.47	15.68	4.17	0.44

DONE AND DATED IN AUGUSTA, MAINE THIS 1 DAY OF April, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for  
PAUL MERCER, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-786-71-E-N.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/7/2016  
Date of application acceptance: 3/8/2016

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

