

**Maine School Administrative District #29  
Houlton High School  
Aroostook County  
Houlton, Maine  
A-37-71-I-A**

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

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

A. Introduction

1. Houlton High School (HHS) located in Houlton, Maine was issued Air Emission License A-37-71-H-N on December 28, 2004 permitting the operation of emission sources associated with their educational facility.
2. HHS has requested an amendment to their license in order to add a previously unlicensed emergency generator.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Electrical Generation Equipment**

<b><u>Equipment</u></b>	<b><u>Power Output (kW)</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Firing Rate (gal/hr)</u></b>	<b><u>Fuel Type, % sulfur</u></b>
Generator #1	100	0.84	6.1	diesel fuel, 0.05%

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as defined in the Department’s regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<b><u>Pollutant</u></b>	<b><u>Current License (TPY)</u></b>	<b><u>Future License (TPY)</u></b>	<b><u>Net Change (TPY)</u></b>	<b><u>Sig. Level</u></b>
PM	0.7	0.8	+0.1	100
PM <sub>10</sub>	0.7	0.8	+0.1	100
SO <sub>2</sub>	3.1	3.2	+0.1	100
NO <sub>x</sub>	4.4	5.3	+0.9	100
CO	0.3	0.5	+0.2	100
VOC	0.1	0.2	+0.1	50

This modification is determined to be a minor modification 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 Chapter 100 of the Department regulations. 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 Chapter 100 of the Department’s regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Generator #1

HHS operates a back-up diesel generator. Generator #1 is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generator #1 is not to be used for prime power when reliable offsite power is available.

A summary of the BACT analysis for Generator #1 (100 kW) is the following:

1. Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. Generator #1 shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO<sub>2</sub> determined a more stringent limit of 0.05% was appropriate and shall be used.
4. The PM and PM<sub>10</sub> limits are derived from Chapter 103.
5. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from Generator #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

C. Annual Emissions

HHS shall be restricted to the following annual emissions, based on a 12 month rolling total:

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers	0.7	0.7	3.1	4.4	0.3	0.1
Generator #1	0.1	0.1	0.1	0.9	0.2	0.1
<b>Total TPY</b>	<b>0.8</b>	<b>0.8</b>	<b>3.4</b>	<b>5.3</b>	<b>0.5</b>	<b>0.2</b>

**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,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-37-71-I-A subject to the conditions found in Air Emission License A-37-71-H-N and in the following conditions.

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

**The following are New Conditions:**

**(19) Generator #1**

- A. HHS shall limit Generator #1 to 500 hr/yr of operation. An hour meter shall be maintained and operated on Generator #1. [MEDEP Chapter 115, BPT]
- B. Generator #1 shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generator #1 shall not be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [MEDEP Chapter 115, BPT]
- C. Generator #1 shall fire diesel fuel with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [MEDEP Chapter 115, BPT]
- D. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Generator #1	0.10	0.10	0.04	3.70	0.80	0.29

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E. Visible emissions from Generator #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-37-71-H-N.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/20/07

Date of application acceptance: 2/27/07

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.