

**Millinocket Regional Hospital
Penobscot County
Millinocket, Maine
A-493-71-G-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. Millinocket Regional Hospital (MRH) of Millinocket, Maine was issued Air Emission License A-493-71-F-R on October 26, 2001, permitting the operation of emission sources associated with their healthcare facility.
2. MRH has requested an amendment to their license in order to:
 - a. Convert boiler LP-1 (hereafter labeled LPB-1) from firing #5 fuel oil to #2 fuel oil.
 - b. Replace boiler LP-2 (7.0 MMBtu/hr) with two new boilers, LPB-2 and LPB-3 (4.5 MMBtu/hr each).

B. Emission Equipment

MRH is permitted to operate the following emission equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
LPB-1	7.0	47.3	#2 fuel oil, 0.35%	1
LPB-2*	4.5	32.1	#2 fuel oil, 0.35%	1
LPB-3*	4.5	32.1	#2 fuel oil, 0.35%	1
HP-1	1.26	9.0	#2 fuel oil, 0.35%	1
HP-2	1.26	9.0	#2 fuel oil, 0.35%	1

* Denotes new equipment.

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:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level</u>
PM	1.7	1.2	-0.5	100
PM ₁₀	1.7	1.2	-0.5	100
SO ₂	16.6	4.9	-11.7	100
NO _x	7.0	6.8	-0.2	100
CO	1.1	1.1	0	100
VOC	0.3	0.3	0	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.

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

MRH operates LPB-1, LPB-2, LPB-3, HP-1, and HP-2 for facility heating.

None of the boilers have heat inputs greater than 10 MMBtu/hr. Therefore these boilers are not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989. A summary of the BACT analysis for the boilers is the following:

1. The total fuel use for the facility shall not exceed 190,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.35% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO₂ determined a more stringent limit of 0.35% was appropriate and shall be used.
3. Chapter 103 regulates PM emission limits for LPB-1, LPB-2, and LPB-3, however in this case a BACT analysis for PM determined a more stringent limit of 0.08 lb/MMBtu was appropriate and shall be used. The PM limits for HP-1 and HP-2 as well as the PM₁₀ limits are derived from the above PM limits.
4. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from the boilers shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period.

C. Annual Emissions

MRH 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)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers	1.1	1.1	4.7	4.0	0.5	0.1
Generator #1	0.1	0.1	0.2	2.8	0.6	0.2
Total TPY	1.2	1.2	4.9	6.8	1.1	0.3

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-493-71-G-A subject to the conditions found in Air Emission License A-493-71-F-R and in the following conditions:

The following shall replace Condition (16) of Air Emission License A-493-71-F-R:

(16) Boilers

- A. Total fuel use for LPB-1, LPB-2, LPB-3, HP-1, and HP-2 shall not exceed 190,000 gal/yr of #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight. Compliance shall be demonstrated by fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BACT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
LPB-1	PM	0.08	MEDEP Chapter 115, BACT
LPB-2	PM	0.08	MEDEP Chapter 115, BACT
LPB-3	PM	0.08	MEDEP Chapter 115, BACT

C. Emissions shall not exceed the following [MEDEP Chapter 115, BACT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
LPB-1	0.84	0.84	2.47	2.10	0.25	0.02
LPB-2	0.54	0.54	1.59	1.35	0.16	0.01
LPB-3	0.54	0.54	1.59	1.35	0.16	0.01
HP-1	0.15	0.15	0.44	0.38	0.05	0.01
HP-2	0.15	0.15	0.44	0.38	0.05	0.01

D. Visible emissions from LPB-1, LPB-2, LPB-3, HP-1, and HP-2 shall each 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]

The following are new conditions:

(20) **Payment of Annual License Fee**

MRH shall pay the annual air emission license fee within 30 days of December 30th of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-493-71-G-A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 7/12/04

Date of application acceptance: 7/12/04

Date filed with the Board of Environmental Protection: _____

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