

**Eastern Maine Healthcare Systems
Penobscot County
Brewer, Maine
A-915-71-B-M**

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

After review of the air emissions license 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

Eastern Maine Healthcare Systems (EMHS) of Brewer, Maine was issued Air Emission License A-915-71-A-N on June 13th, 2005 to operate air emission sources associated with their health care administrative facility.

EMHS has requested a minor revision to their license to clarify that Boiler #1 and #2 are dual fuel boilers that are able to fire natural gas as well as #2 fuel oil.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	4.2	30 gal/hr 4118 scf/hr	#2 Fuel Oil Natural Gas	1
Boiler #2	4.2	30 gal/hr 4118 scf/hr	#2 Fuel Oil Natural Gas	2

C. Application Classification

Annual emissions for EMHS were calculated using the worst case scenario of burning 100% #2 fuel oil in Boilers #1 and #2. Therefore, there is no emissions increase associated with this license revision. This application is considered a minor revision of Air Emission License A-915-71-A-N, 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. Boilers #1 and #2

Boilers #1 and #2 are primarily used to provide heat for the facility. Both boilers are rated at 4.2 MMBtu/hr and therefore 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 Boilers #1 and #2 is the following:

1. The SO₂ emission limits are based on the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
2. Chapter 103 regulates PM emission limits. However, the BACT limits of 0.08 lb/MMBtu for #2 fuel oil and 0.05 lb/MMBtu for natural gas are more stringent and shall be used. The PM₁₀ limits are derived from the PM limits.
3. NO_x, CO and VOC emission limits are based upon AP-42 data dated 9/98 for #2 fuel oil and AP-42 data dated 7/98 for natural gas.
4. 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 average in a continuous 3-hour period.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis.

Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

The Department hereby grants Air Emission License A-915-71-B-M, subject to the conditions set forth in Air Emission License A-915-71-A-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

SPECIFIC CONDITIONS

The following shall replace Condition 16 in Air Emission License A-915-71-A-N:

(16) **Boilers #1 and #2**

- A. Total fuel use for Boilers #1 and #2 shall not exceed a heat input of 14,000 MMBtu of #2 fuel oil or natural gas combined, on a 12 month rolling total. Compliance shall be demonstrated by fuel records from the supplier documenting the quantity and type of fuel delivered. [MEDEP Chapter 115, BACT]
- B. Emissions from Boilers #1 and #2 shall each not exceed the following [MEDEP Chapter 115, Chapter 103, BACT]:

Emission Unit		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #1 and #2, #2 fuel oil	lb/MMBtu	0.08	-	-	-	-	
	lb/hr	0.34	0.34	1.48	0.60	0.15	0.02
Boilers #1 and #2, natural gas	lb/MMBtu	0.05	-	-	-	-	-
	lb/hr	0.21	0.21	Neg.	0.41	0.35	0.02

- C. Visible emissions from Boilers #1 and #2 shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period when firing #2 fuel oil. [MEDEP Chapter 101]
- D. Visible emissions from Boilers #1 and #2 shall each not exceed 10% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period when firing natural gas. [MEDEP Chapter 101]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2006.

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-915-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/8/2006

Date of application acceptance: 6/16/2006

Date filed with the Board of Environmental Protection: _____

This Order prepared by Jonathan Voisine, Bureau of Air Quality.