

**MaineGeneral Health
Kennebec County
Augusta, Maine
A-230-71-J-A (SM)**

**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. MaineGeneral Health (MGH) located in Augusta, Maine was issued Air Emission License A-230-71-I-R on July 26, 2005 permitting the operation of emission sources associated with their healthcare facility.
2. MGH has requested an amendment to their license in order to add a third boiler.

B. Emission Equipment

The following equipment is new to this air emission license:

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>
Boiler #3	6.3	45.0	#2 fuel oil, 0.35%	1

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.

There is no change to the permitted emissions from this facility. Therefore, 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’s 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. Boiler #3

MGH currently operates two boilers which are licensed to fire either #2 fuel oil or #6 fuel oil. Boiler #1 is a 12.2 MMBtu/hr boiler installed in 1964. Boiler #2 is a 12.6 MMBtu/hr boiler installed in 1970. These boilers exhaust to a common stack (Stack #1).

MGH proposes to install Boiler #3, a 6.3 MMBtu/hr boiler which will fire only #2 fuel oil. Boiler #3 will also exhaust to Stack #1.

Boiler #3 has a maximum heat input of less than 10 MMBtu/hr and is therefore 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 Boiler #3 is the following:

1. Combined fuel usage for Boilers #1, #2, and #3 of both #2 fuel oil and #6 fuel oil shall not exceed the equivalent of 60,000 MMBtu/year based on a 12 month rolling total.
2. The maximum sulfur content of the #2 fuel oil fired shall not exceed 0.35% by weight.
3. Chapter 106 regulates fuel sulfur content. However, in this case a BACT analysis for SO₂ determined a more stringent limit was appropriate and shall be used.
4. Chapter 103 regulates PM emission limits. 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 PM₁₀ emission limits are based on the PM limits.
5. NO_x emission limits are based on data from similar #2 fired boilers of this size and age.
6. CO and VOC emission limits are based upon AP-42 data dated 9/98.
7. Visible emissions from Stack #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block average in a continuous 3-hour period.

C. Annual Emissions

MGH 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	6.0	6.0	31.5	9.0	1.1	0.1
Generator #1	0.1	0.1	0.1	2.7	0.6	0.2
Generator #2	0.2	0.2	0.1	5.0	1.3	0.1
Total TPY	6.3	6.3	31.7	16.7	3.0	0.4

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-230-71-J-A subject to the conditions found in Air Emission License A-230-71-I-R 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 shall replace Condition (16) of air emission license A-230-71-I-R:

(16) Boilers

- A. MGH shall not exceed a combined fuel usage to Boilers #1, #2, and #3 of #2 fuel oil and #6 fuel oil equivalent to 60,000 MMBtu/year heat input based on a 12 month rolling total. [MEDEP Chapter 115, BPT]
- B. Boiler #3 shall fire only #2 fuel oil. [MEDEP Chapter 115, BACT]
- C. The maximum sulfur content of the #2 fuel oil shall not exceed 0.35% by weight. The maximum sulfur content of the #6 fuel oil shall not exceed 1.0% by weight. Compliance shall be demonstrated by fuel records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. A heating value of 0.140 MMBtu/gal shall be used for #2 fuel oil and 0.150 MMBtu/gal shall be used for #6 fuel oil. [MEDEP Chapter 115, BPT]
- D. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.20	MEDEP Chapter 103, Section 2(A)(1)
Boiler #2	PM	0.20	MEDEP Chapter 103, Section 2(A)(1)
Boiler #3	PM	0.08	MEDEP Chapter 115, BACT

E. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	2.44	2.44	12.82	3.66	0.44	0.02
Boiler #2	2.52	2.52	13.24	3.78	0.45	0.06
Boiler #3	0.50	0.50	2.22	1.89	0.23	0.02

F. Visible emissions from Stack #1 (the combined stack for Boilers #1, 2, and 3) 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 115, BACT]

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-230-71-I-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/4/07

Date of application acceptance: 5/4/07

Date filed with the Board of Environmental Protection: _____

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