

Spring Harbor Hospital )  
 Cumberland County )  
 Westbrook, Maine )  
 A-828-71-B-R (SM)

**Departmental  
 Findings of Fact and Order  
 Air Emission License**

After review of the air emission license renewal 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

Spring Harbor Hospital located in Westbrook, Maine has applied to renew their Air Emission License, permitting the operation of emission sources associated with their Westbrook, Maine health care facility.

B. Emission Equipment

Spring Harbor Hospital is authorized to operate the following equipment

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate (scf/hr)</u></b>	<b><u>Fuel Type</u></b>	<b><u>Stack #</u></b>
Boiler #1	6.3	6300	Natural Gas	1
Boiler #2	6.3	6300	Natural Gas	1
Boiler #3	1.3	1300	Natural Gas	1
Heater #1	2.7	2700	Natural Gas	2
Heater #2	2.7	2700	Natural Gas	2
Heater #3	2.7	2700	Natural Gas	2

**Emergency Diesel Generator**

<b><u>Equipment</u></b>	<b><u>Power Output (HP)</u></b>	<b><u>Fuel Type, % Sulfur</u></b>	<b><u>Maximum Firing Rate (gal/hr)</u></b>	<b><u>Pollution Controls Equipment</u></b>	<b><u>Stack #</u></b>
Diesel #1	635 HP	Diesel Fuel, 0.05%	30.3	none	3

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C. Application Classification

The application for Spring Harbor Hospital does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

**II. BEST PRACTICAL TREATMENT**

A. 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 Bureau of Air Quality regulations.

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

Spring Harbor Hospital operates two 6.3 MMBtu/hr boilers (Boiler #1 and Boiler #2) for facility heating purposes. Spring Harbor Hospital operates a Clean Steam Boiler (Boiler #3) with a maximum heat input capacity of 1.3 MMBtu/hr for facility humidity control. Boilers #1, #2 and #3 all exhaust to Stack #1. Spring Harbor Hospital also operates three Domestic Hot Water Heaters (Heater #1, Heater #2 and Heater #3), each with a maximum heat input capacity of 2.7 MMBtu/hr, for facility hot water. Heaters #1, #2 and #3 all exhaust to Stack #2. All Boiler and Hot Water Heating units are natural gas fired.

A summary of the BACT analysis is as follows:

1. PM/PM<sub>10</sub>, SO<sub>x</sub>, NO<sub>x</sub>, CO and VOC emission limits are based on vendor supplied data.
2. Visible emissions from Stack #1 or Stack #2 shall not exceed 10% opacity based on a six-(6) minute block average.

C. Emergency Diesel Generator #1

Spring Harbor Hospital maintains a back-up diesel generator, designated Emergency Diesel Generator #1. Back-up generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available.

BPT for the 635 HP emergency generator is met by not exceeding an annual fuel use of 15,600 gal/yr of diesel fuel with a sulfur content not to exceed 0.05% by weight. In addition Spring Harbor Hospital has a limit on Emergency Diesel Generator #1 usage of 500 hrs/yr.

A summary of the BPT analysis for Emergency Diesel Generator #1 is the following:

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

D. Annual Emission Restrictions

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

- Total annual facility diesel fuel use shall not exceed 15,600 gallons of diesel fuel with a maximum sulfur content of 0.05% by weight.

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	0.8
PM <sub>10</sub>	0.8
SO <sub>2</sub>	0.4
NO <sub>x</sub>	13.8
CO	12.7
VOC	1.1

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**IV. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulation Chapter 115, the level of air quality analyses required for a minor 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. Based on the above total facility emissions, Spring Harbor Hospital is below the emissions level required for modeling and monitoring.

**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-828-71-B-R subject to 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.

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C). [38 MRSA §347-C]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]

- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353.  
[MEDEP Chapter 115, 38 M.R.S.A. §353]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.  
[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.  
[MEDEP Chapter 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee’s compliance status. [MEDEP Chapter 115]

**SPECIFIC CONDITIONS**

(16) Boiler Units

A. Emissions from the facility boiler and heater units shall not exceed the following:

Equipment		PM/	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #1	lb/MMBtu	0.01	n/a	n/a	n/a	n/a	n/a
	lb/hr	0.06	0.06	0.004	0.8	0.9	0.13
Boiler #2	lb/MMBtu	0.01	n/a	n/a	n/a	n/a	n/a
	lb/hr	0.06	0.06	0.004	0.8	0.9	0.13
Boiler #3	lb/hr	0.01	0.01	0.0008	0.2	0.07	0.03
Heater #1	lb/hr	0.03	0.03	0.002	0.5	0.4	0.05
Heater #2	lb/hr	0.03	0.03	0.002	0.5	0.4	0.05
Heater #3	lb/hr	0.03	0.03	0.002	0.5	0.4	0.05

[MEDEP Chapter 115, BPT]

B. Visible emissions.

Visible emissions from Stack #1 or Stack #2 shall not exceed 10% opacity based on a (6) six-minute block average. [MEDEP Chapter 101]

(17) Emergency Diesel Generator #1

A. Fuel use for the Emergency Diesel Generator #1 shall not exceed 15,133 gallons per year of diesel fuel oil with a maximum sulfur content of 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis. [MEDEP Chapter 115, BPT]

B. Emergency Diesel Generator #1 shall be limited to 500 hours per year of operation, based on a 12 month rolling total. An hour meter shall be installed and operated on the Emergency Diesel Generator. [MEDEP Chapter 115, BPT]

C. Emergency Diesel Generator #1 will be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or in case of an emergency as defined in Chapter 100 of the Department Regulations. [MEDEP Chapter 115, BPT]

D. A log documenting the dates, times and reason of operation for Emergency Diesel Generator #1 shall be kept. [MEDEP Chapter 115, BPT]

E. Emissions from the Emergency Diesel Generator #1 shall not exceed the following:

Pollutant	lb/MMBtu	lb/hr
PM	0.12	0.5
PM <sub>10</sub>	n/a	0.5
SO <sub>2</sub>	n/a	1.2
NO <sub>x</sub>	n/a	12.0
CO	n/a	12.0
VOC	n/a	1.4

[MEDEP Chapter 115, BPT]

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

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- (18) Spring Harbor Hospital shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 MRSA §605).
- (19) Spring Harbor Hospital shall pay the annual air emission license fee within 30 days of April 30 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                      2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **January 31, 2007**

Date of application acceptance: **February 8, 2007**

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

This Order prepared by, Peter G. Carleton, Bureau of Air Quality