STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

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The Emery Waterhouse Company
Cumberland County
Portland, Maine
A-221-71-F-R/A

Departmental
Findings of Fact and Order
Air Emission License

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

The Emery Waterhouse Company (EWC) located in Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their warehousing and hardware distribution facility.

EWC has requested an amendment to their License in order to add an emergency generator.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Stack #
Boiler #1	2.2	15.5	#2 fuel oil	1
Boiler #2	5.0	35.7	#2 fuel oil	2
Boiler #3	5.0	35.7	#2 fuel oil	3
Boiler #4	5.0	35.7	#2 fuel oil	4
*Generator #1	4.7	34.4	Diesel Fuel @ 15 ppm S	5

* Indicates 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. This application is determined to be a License renewal with 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 *Definitions Regulation*, 06-096 CMR 100 (as amended). 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 *Definitions Regulation*, 06-096 CMR 100 (as amended). 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

Boilers #1, #2, #3, and #4 are used for facility heating needs.

The boilers all have maximum heat inputs less than 10 MMBtu/hr and are 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 BPT analysis for Boilers #1, #2, #3, and #4 is the following:

1. The total fuel use for the facility shall not exceed 200,000 gal/year of #2 fuel oil, based on a 12 month rolling total, which meets the criteria in ASTM D396.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (as amended) regulates fuel sulfur content. However, the use of #2 fuel oil which meets the criteria in ASTM D396 is more stringent and shall be considered BPT.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (as amended) regulates PM emission limits for Boilers #2, #3, and #4. However a PM emission limit of 0.12 lb/MMBtu is more stringent and shall be considered BPT for Boiler #1, #2, #3 and #4. The PM_{10} limits are derived from the 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 each boiler 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.

C. Generator #1

EWC operates an emergency generator designated Generator #1.

Emergency Generator is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Generator #1 was ordered after July 11, 2005 and manufactured after April 1, 2006. Therefore, Generator #1 is subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*. By meeting the requirements of Subpart IIII, Generator #1 also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutuants*, 40 CFR Part 63, Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines.

A summary of the BACT analysis for Generator #1 is the following:

1. Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
2. Generator #1 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Generator #1 shall be equipped with a non-resettable hour meter.
4. 06-096 CMR 103 regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.

6. EWC shall operate and maintain Generator #1 in accordance with the manufacturer's written instructions. EWC shall not change settings that are not approved in writing by the manufacturer.
7. Visible emissions from Generator #1 shall 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.

D. Annual Emissions
EWC 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	PM_{10}	SO_2	NO_x	CO	VOC
Boilers	1.7	1.7	7.1	4.2	0.5	0.1
Generator #1	0.1	0.1	0.01	3.8	1.0	0.1
Total TPY	**1.8**	**1.8**	**7.1**	**8.0**	**1.5**	**0.2**

III. AMBIENT AIR QUALITY ANALYSIS

According to the 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the above total facility emissions, EWC 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-221-71-F-R/A 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 M.R.S.A. §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. [06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 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:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. 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
   2. pursuant to any other requirement of this license to perform stack testing.

B. 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

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 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:

A. 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

B. 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

C. 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.

[06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 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. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boilers**

A. Total fuel use for Boilers #1, #2, #3, and #4 shall not exceed 200,000 gal/yr of #2 fuel oil which meets the criteria in ASTM D396. Compliance shall be demonstrated by fuel records 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, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)
Boiler #3	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a), BPT
Boiler #4	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a), BPT

C. Emissions shall not exceed the following [06-096 CMR 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	0.34	0.34	1.41	0.84	0.10	0.01
Boiler #2	0.60	0.60	2.52	1.50	0.18	0.02
Boiler #3	0.60	0.60	2.52	1.50	0.18	0.02
Boiler #4	0.60	0.60	2.52	1.50	0.18	0.02

D. Visible emissions from Boilers #1, #2, #3, and #4 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. [06-096 CMR 101]

(17) Generator #1

A. Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [40 CFR 60.4207(b)]

B. Compliance with the sulfur content limits shall be based on fuel records from the supplier showing the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]

C. Generator #1 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Generator #1 shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]

D. Generator #1 shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]

E. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

F. Emissions shall not exceed the following [06-096 CMR 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)
Generator #1	0.57	0.57	0.01	15.07	4.00	0.42

G. Generator #1 is subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]

H. EWC shall operate and maintain Generator #1 in accordance with the manufacturer's written instructions. EWC shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]

I. 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. [06-096 CMR 101]

(18) EWC 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).

DONE AND DATED IN AUGUSTA, MAINE THIS 13th DAY OF June, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie Loyzim for
JAMES P. BROOKS ACTING 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: 5/6/2010
Date of application acceptance: 5/11/2010

Date filed with the Board of Environmental Protection:

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

Filed
JUN 14 2011
State of Maine
Board of Environmental Protection