



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

**Unum Corporation
Cumberland County
Portland, Maine
A-657-71-I-M (SM)**

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

After review of the air emissions 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

Unum Corporation (Unum) of Portland, Maine was issued Air Emission License A-657-71-H-R on October 26, 2007, permitting the operation of emission sources associated with their insurance office building.

Unum has requested a modification to their Air Emission License in order to reflect the following changes:

1. HO1-Boiler #2 has been replaced with two new boilers which each have a heat input capacity less than 1.0 MMBtu/hr. These new boilers are considered insignificant. HO1-Boiler #2 shall be removed from the License.
2. HO1-Generator #1, HO2-Generator #2, and HO3-Generator #3 were all licensed with incorrect capacities. The correct capacities shall be incorporated in this License.

B. Emissions Equipment

Electrical Generation Equipment

Equipment	Power Output (kW)	Engine Firing Rate (gal/hr)	Maximum Capacity (MMBtu/hr)	Stack #
HO1-Gen #1	150	10.7	1.5	3
HO2-Gen #2	250	18.0	2.5	2
HO3-Gen #3	100	7.4	1.0	8

C. Application Classification

This amendment will not increase emissions of any pollutant. Therefore, this modification is determined to be a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

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 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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. Facility Emissions

Unum has the following 12 month rolling total annual emissions based on firing no more than:

- 100,000,000 cubic feet of natural gas facility wide.
- 500 hours of operation per year per back-up generator (diesel, 0.05%S).

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Boilers</u>	<u>HO1 Gen #1</u>	<u>HO2 Gen #2</u>	<u>HO3 Gen #3</u>	<u>Generator #4</u>	<u>Generator #5</u>	<u>Total TPY</u>
PM	6.18	0.11	0.19	0.08	0.50	0.50	7.56
PM ₁₀	6.18	0.11	0.19	0.08	0.50	0.50	7.56
SO ₂	0.03	0.02	0.03	0.01	0.26	0.26	0.61
NO _x	5.00	1.62	2.72	1.12	9.72	9.72	29.9
CO	4.20	0.35	0.59	0.24	1.86	1.86	9.10
VOC	0.28	0.13	0.22	0.09	0.18	0.18	1.08

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 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.

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-657-71-I-M subject to the conditions found in Air Emission License A-657-71-H-R, and 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 License A-657-71-H-R:

(16) Boilers

- A. All licensed boilers at Unum shall fire only natural gas. [06-096 CMR 115, BPT]
- B. Emissions from HO2-Boiler #1a and #1b each shall not exceed the following [06-096 CMR 115, BACT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.05	0.18
PM ₁₀	n/a	0.18
SO ₂	n/a	0.01
NO _x	n/a	0.34
CO	n/a	0.28
VOC	n/a	0.02

- C. Emissions from HO2-Boiler #2a, 2b, 2c, 2d and 2e each shall not exceed the following [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.10
PM ₁₀	0.10
SO ₂	0.01
NO _x	0.20
CO	0.17
VOC	0.01

- D. Emissions from HO2-Boiler #3 shall not exceed the following [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.12
PM ₁₀	0.12
SO ₂	0.01
NO _x	0.10
CO	0.08
VOC	0.01

- E. Emissions from HO3-Boiler #1 shall not exceed the following [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.54
PM ₁₀	n/a	0.54
SO ₂	n/a	0.01
NO _x	n/a	0.44
CO	n/a	0.37
VOC	n/a	0.02

- F. Emissions from HO3-Boiler #2, #3 and #4 shall not exceed the following (each) [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.10	0.54
PM ₁₀	n/a	0.54
SO ₂	n/a	0.01
NO _x	n/a	0.43
CO	n/a	0.36
VOC	n/a	0.02

- G. Unum shall fire no more than 100,000,000 cubic feet of natural gas facility wide, based on a 12-month rolling total. Compliance shall be based on natural gas receipts from the supplier showing the quantity of fuel supplied. [06-096 CMR 115, BPT]
- H. Visible emissions from each stack serving the licensed boilers at Unum (Stack 1, 4, 5, 6 and 7) shall not exceed an opacity of 10 percent on a six (6) minute block average basis. [06-096 CMR 101, BPT]

The following shall replace Conditions 17 A, B, and C in License A-657-71-H-R:

(17) Back-up Generators

A. Emissions from HO1-Gen#1 shall not exceed the following: [06-096 CMR 115, BPT]

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.45
PM ₁₀	0.45
SO ₂	0.07
NO _x	6.46
CO	1.39
VOC	0.53

B. Emissions from HO2-Gen#2 shall not exceed the following: [06-096 CMR 115, BPT]

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.76
PM ₁₀	0.76
SO ₂	0.12
NO _x	10.88
CO	2.34
VOC	0.89

C. Emissions from HO3-Gen#3 shall not exceed the following: [06-096 CMR 115, BPT]

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.31
PM ₁₀	0.31
SO ₂	0.05
NO _x	4.47
CO	0.96
VOC	0.36

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The following is a new Condition:

- (1) Unum 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 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS *19th* DAY OF *December* 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *James P. Brophy*

DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-657-71-H-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/2/2008

Date of application acceptance: 6/2/2008

Date filed with the Board of Environmental Protection: _____

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

