



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

**ecomaine
Cumberland County
Portland, Maine
A-283-77-3-M**

**Departmental
Findings of Fact and Order
New Source Review
Amendment #1**

After review of the air emissions license minor revision 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

FACILITY	ecomaine
PART 70 LICENSE NUMBER	A-283-70-A-I
LICENSE TYPE	06-096 CMR 115 Minor Revision
NAICS CODE	562213 (Solid Waste Combustors and Incinerators)
NATURE OF BUSINESS	Municipal Waste Combustion
PART 70 LICENSE ISSUANCE DATE	December 14, 2005
NSR AMENDMENT ISSUANCE DATE	February 4, 2010

B. Amendment Description

ecomaine has applied to incorporate the mercury requirements of 38 MRSA, §585-B sub-§5 (as amended and effective September 12, 2009) into the facility's air emission license. Included in the mercury statute is the requirement for air emission sources to meet either a 25 lb/yr mercury emission limit or reduce mercury emissions by 90% by weight after January 1, 2010. Compliance with these limits must be specified in the license of the air emission source.

C. Emission Equipment

The following is addressed in this air emission license revision: mercury emissions from the two 275 tons per day municipal waste combustors (MWC – A and MWC - B).

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

BANGOR
106 HOGAN ROAD, SUITE 6
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 04679-2094
(207) 764-0477 FAX: (207) 760-3143

D. Application Classification

Incorporating the statutory language into ecomaine's air emission license does not violate any applicable federal or state requirements; does not reduce monitoring, reporting, testing or record keeping; and does not increase emissions.

Therefore, the application has been classified as a minor revision and has been processed under *Minor and Major Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). The minor revision will be incorporated into the pending Part 70 air emission license renewal.

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. The applicant must also comply with all Maine statutes.

B. Mercury Minor Revision

Effective September 12, 2009, as amended, 38 MRSA, §585-B sub-§5 states in part: 'As an alternative to not emitting mercury in excess of 11.4 kilograms, or 25 pounds, after January 1, 2010, an air emission source may reduce mercury emissions by 90% by weight after January 1, 2010. Compliance with these limits must be specified in the license of the air emission source.'

This minor revision includes the statutory language as an air emission license condition. Currently, condition 14(E)(3) in the Part 70 air emission license A-283-70-A-I (issued December 14, 2005) sets forth an 'enforceable by state only' mercury limit of 50 lb/yr which was the limit at the time of issuance, under §585-B sub-§5. Subsequently, §585-B sub-§5 has been amended and ecomaine shall meet the new requirements of the statute as per this minor revision. The federally enforceable mercury limits in A-283-70-A-I shall remain unchanged.

To minimize mercury emissions, ecomaine has operated an activated carbon injection system since 2000 to control mercury from the MWC units. There are also on-going education and outreach initiatives to member communities to keep mercury containing items from entering the waste stream.

ecomaine has proposed the following calculation methods to determine compliance with the statutory requirements:

Calculations for Determining Compliance with the 25 lb/yr Mercury Limit

ecomaine conducts an EPA Method 29 annual compliance mercury stack test from which the amount of mercury released annually is determined. The micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) stack test result is converted to mercury lb/hr for each municipal waste combustor unit using the average flow rate of the flue gas during the stack test and conversion factors. The hours of operation per year for each unit are then used to determine the total facility lb/yr Hg value.

Calculations for Determining Compliance with the 90% Removal Efficiency

The EPA Method 29 annual compliance mercury stack test is conducted at both the inlet and outlet ports. The inlet port is prior to the air pollution control system and the outlet port is after control (stack emissions). Based on the input/output data, a calculation is performed to determine the percent of removal by the air pollution control system using the following equation:

$$[(\text{inlet data}) - (\text{outlet data})]/[\text{inlet data}] * 100 = \% \text{ removal}$$

It is noted that in a March 23, 2006 letter to DEP Commissioner Littell from the Legislative Committee on Natural Resources, the committee stated that determining a source's compliance based on a single stack test could be problematic and that the Department could consider the averaging of a number of tests in lieu of a single test, where appropriate.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a minor revision shall be determined on a case-by case basis. Based on the information available in the file, the similarity to existing sources, and the emissions levels addressed in this minor revision, ecomaine was not required to submit an ambient air quality analysis as part of this license.

ORDER

The Department hereby grants Air Emission License Minor Revision A-283-77-3-M pursuant to the preconstruction licensing requirements of 06-096 CMR 115 and subject to the conditions below.

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

(1) Mercury Limitations

- A. ecomaine shall comply with the mercury emission requirements set forth in 38 MRSA, §585-B sub-§5 (currently 25 lb/yr limit or 90% reduction by weight).
- B. Compliance with the statutory mercury emission limitations shall be based on calculations using the annual EPA Method 29 mercury stack test results. The outlet stack test results, the average flow rate of the flue gas during the stack test, conversion constants, and MWC operating hours shall be used to determine the lb/yr limit. Inlet and outlet stack test results shall be used to determine removal efficiency. Prior approval from the Department is required if different compliance demonstration methods are to be used.

Enforceable by State Only

DONE AND DATED IN AUGUSTA, MAINE THIS *4th* DAY OF *February*, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *James P. Brooks Jr.*

DAVID P. LITTLE, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 24, 2009

Date of application acceptance: November 30, 2009

Date filed with the Board of Environmental Protection:

This Order prepared by Kathleen E. Tarbuck, Bureau of Air Quality.

