STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Bangor Hydro-Electric Company	)	**Departmental**
Hancock County	)	**Finding of Fact and Order**
Bar Harbor, Maine	)	**Air Emission License**
A-615-71-E-R	)	

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

Bangor Hydro-Electric Company (BH) in Bangor, Maine has applied to renew their Air Emissions License, permitting the operation of four (4) existing diesel generators in Bar Harbor, Maine. The facility operates on a limited basis and provides electricity for BH during shortfalls in regular capacity or when regulation of system voltage is required.

B. Emission Equipment

BH is licensed to operate the following equipment:

Emergency Generator Units

Source ID	Max. Capacity (MMBtu/hr)	Max. Firing Rate	Power Output
Generator #1	21.0	155 gal/hr	2,000 kW
Generator #2	21.0	155 gal/hr	2,000 kW
Generator #3	21.0	155 gal/hr	2,000 kW
Generator #4	21.0	155 gal/hr	2,000 kW

C. Application Classification

BH has not proposed the licensing of increased emissions or the installation of new or modified equipment, therefore the license application is considered a renewal of existing licensed emission sources only.

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. Generators 1, 2, 3, & 4

BH utilizes aftercooling and a fuel additive in each generator for the reduction of NOx and PM.

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. This facility operates on a limited basis and provides electricity for BH during shortfalls in regular capacity or when regulation of system voltage is required.

BPT for the generators is the following:

1. Each generator shall be limited to 500 hr/yr of operation based on a 12 month rolling total. A written log shall be kept of all operating hours and an hour meter shall be operated for compliance purposes.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however in this case a BPT analysis for SO_2 determined a more stringent limit of 15 ppm was appropriate and shall be used.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
4. A NO_x emission limit of 71 lb/hr was established in Air Emission license A-615-71-C-M and now represent BPT. Complaince shall be based on a facility average of the operating units.

5. CO and VOC emission rates were established in Air Emission license A-615-71-C-M and now represent BPT.
6. To avoid increment consumption for any short-term period, BH shall not exceed the use of 8,833 gallons of diesel fuel in any 24-hour period (midnight to midnight).
7. Opacity from each diesel engine shall not exceed 30% on a six (6) minute block average basis, except for two (2), six (6) minute block averages in a 3-hour period.

C. Annual Emissions

Based on the operating restriction of 500 hours per year on each generator, the total annual emissions are as follows:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Generator #1	0.63	0.63	0.01	17.75	4.46	0.53
Generator #2	0.63	0.63	0.01	17.75	4.46	0.53
Generator #3	0.63	0.63	0.01	17.75	4.46	0.53
Generator #4	0.63	0.63	0.01	17.75	4.46	0.53
Total TPY	**2.5**	**2.5**	**0.04**	**71.0**	**17.9**	**2.1**

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling was performed and is summarized in license A-615-71-A-N. 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, and
-will not violate applicable ambient air quality standards, or increment standards either alone or in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-615-71-E-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 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) Generators #1, 2, 3 & 4

A. BH shall limit each generator to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on each generator. [06-096 CMR 115, BPT]

B. The generators shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The facility operates on a limited basis and provides electricity for BH during shortfalls in regular capacity or when regulation of system voltage is required. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]

C. The generators shall fire diesel fuel with a sulfur limit not to exceed 15 ppm. Compliance shall be based on fuel records from the supplier documenting the sulfur content of the fuel. [06-096 CMR 115, BPT]

D. Emissions shall not exceed the following for each generator:

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

E. Emissions shall not exceed the following for each generator [06-096 CMR 115, A-615-71-C-M, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator	2.5	2.5	0.03	71.0*	17.9	2.1

***NOTE:** Compliance with this NO_x lb/hr limit shall be determined by the following:

$$\frac{\left(\sum \textit{Operational Generator lb / hr emision rates}\right)}{\textit{The number of operational generators}}$$

F. Visible emissions from each generator shall not exceed 30% 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]

G. Should any generator exceed 500 hours during any rolling 12 month period, the licensee shall notify the Department of the excess operation within 2 working days of the excess operation. [06-096 CMR 115, BPT]

H. To avoid consuming increment for any short-term period, BH shall not exceed the combined use of 8,833 gallons of diesel fuel in any 24-hour period. The 24-hour period is defined as midnight to midnight. Compliance shall be documented through the hourly meter readings and maximum firing rate for the unit. [06-096 CMR 115, A-615-71-A-N, BPT]

(17) BH shall continue to use a chemical fuel additive in the diesel fuel for the generators to reduce particulate matter emissions. [06-096 CMR 115, BPT]

(18) BH shall keep records of the type, quantity and manufacturer's recommended concentration of the chemical fuel additive used in the diesel fuel. [06-096 CMR 115, BPT]

(19) The stack height for the generators shall be 28.4 feet (8.65 meters) minimum as analyzed by the meteorological air dispersion model. [06-096 CMR 115, A-615-71 A-N, BPT]

(20) BH 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 (Title 38 MRSA §605).

(21) BH shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
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: 5/23/2008
Date of application acceptance: 7/9/2008

Date filed with the Board of Environmental Protection: _____

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

FILED
DEC 23 2008
BOARD OF ENVIRONMENTAL PROT
STATE OF MAINE