

**Portland International Jetport  
Cumberland County  
Portland, Maine  
A-582-71-H-A**

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

After review of the air emissions license amendment 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., §344 and §590, the Department finds the following facts:

**I. REGISTRATION**

A. Introduction

The Portland International Jetport of Portland, Maine has submitted an amendment to their license to add a back-up generator. The Portland International Jetport was issued Air Emission License A-582-71-F-R/A on June 18, 2004, permitting the operation of emission sources associated with their air travel facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Back-up Generator**

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type</u>	<u>Stack #</u>
Generator - Unit #23	1.5	11.3	Diesel	19

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. The emission increases for the addition of the generator are below the significance levels as follows:

<u>Pollutant</u>	<u>Increase from Generator (TPY)</u>	<u>Sig. Level</u>
PM	0.12	100
PM <sub>10</sub>	0.12	100
SO <sub>2</sub>	0.02	100
NO <sub>x</sub>	1.71	100
CO	0.37	100
VOC	0.14	50

The added generator to Portland International Jetport is determined to be a minor modification and has been processed under *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005) .

## 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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

### B. Back-up Generator – Unit #23

The 150 kW back-up generator unit #23 is a 2004 diesel engine rated at 1.5 MMBtu/hr and 11.3 gallons/hr, with fuel oil not to exceed a sulfur content of 0.05%.

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.

The back-up generator was manufactured prior to April 1, 2006, therefore, the unit is not subject to New Source Performance Standards 40 CFR Part 60, Subpart

III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.*

A summary of the BACT analysis for back-up generator unit #23 is the following:

- PM/PM<sub>10</sub> – 0.31 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96); 0.48 lb/hr
- SO<sub>2</sub> – 0.05 lb/MMBtu based on 0.05% sulfur fuel oil; 0.08 lb/hr
- NO<sub>x</sub> – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96); 6.8 lb/hr
- CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96); 1.5 lb/hr
- VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96); 0.6 lb/hr
- Opacity – Visible emissions from Generator #23 shall not exceed 20% opacity on a 6 minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period.

The back-up generator shall be limited to 500 hr/yr of operation based on a 12 month rolling total. An hour meter shall be maintained and operated on the generator.

C. Annual Emissions

Portland International Jetport shall be restricted to the following annual emissions on a 12-month rolling total, based on the use of 98,000 gallons/year of #2 fuel oil in the boilers and 500 hours/year for each of the generators:

**Total Licensed Annual Emissions for the Facility  
 Tons/year**

(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers	0.8	0.8	2.4	2.4	0.2	0.01
Generator #13	0.07	0.07	0.08	1.0	0.2	0.08
Generator #15	0.01	0.01	0.01	2.4	0.3	0.09
Generator #18	0.2	0.2	0.2	2.7	0.6	0.2
Generator #21	0.01	0.01	0.02	0.7	0.09	0.03
Generator #23	0.12	0.12	0.02	1.7	0.37	0.14
<b>Total TPY</b>	<b>1.2</b>	<b>1.2</b>	<b>2.7</b>	<b>10.9</b>	<b>1.8</b>	<b>0.6</b>

### III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a minor modification shall be determined on a case-by case basis. Based on the proposed emission limits, 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-582-71-H-A subject to the conditions found in Air Emission License A-582-71-F-R/A and in 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.

**The following is a new condition:**

**(21) Back-up Generator Unit #23**

- A. Portland International Jetport shall limit back-up generator #23 (1.5 MMBtu/hr) to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on the back-up generator. A log shall be maintained documenting compliance with the 12 month rolling total operating limit. [06-096 CMR 115, BPT]
- B. Back-up generator #23 shall only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The back-up generator shall not to be used

- for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]
- C. Back-up generator #23 shall fire diesel/#2 fuel oil with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel records from the supplier. [06-096 CMR 115, BPT]
- D. Emissions from back-up generator #23 shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Back-up generator #23	0.48	0.48	0.08	0.8	1.5	0.6

- E. Visible emissions from back-up generator #23 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]

DONE AND DATED IN AUGUSTA, MAINE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

**The term of this amendment shall be concurrent with the term of Air Emission License A-582-71-F-R/A.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 21, 2008

Date of application acceptance: March 31, 2008

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

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