



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

BETH NAGUSKY
ACTING COMMISSIONER

University of Maine System
Cumberland County
Portland, Maine
A-464-71-N-M (SM)

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

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 University of Maine System (USM) was issued Air Emission License A-464-71-M-R on September 30, 2010, permitting the operation of emission sources associated with its Portland, Maine Campus.

USM has requested to add a new stack to serve Boiler #3 and isolate it from the common stack that is currently serving Boilers #1, #2, and #3. USM has also requested to remove #4 and #6 fuel oil as licensed fuels for Boiler #3, permitting it to fire only Natural Gas and #2 fuel oil.

B. Application Classification

USM does not propose to alter the current facility fuel limits, and as such, the facility emissions will not change. Therefore, this application is considered to be a minor revision to their Air Emission License. With the facility fuel restrictions, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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.

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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.

A BPT analysis for USM was established in Air Emission License A-464-71-M-R. All of the emission requirements outlined in this License are still applicable for Boiler #3 except for the opacity requirement. Visible Emissions from Boiler #3 shall not exceed 10% opacity on a six minute block average except for no more than one, six minute block average in a three hour period when firing either natural gas or #2 fuel oil. However, Boiler #3 shall not fire #4 or #6 fuel oil as of the date this Revision is signed.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a source shall be determined on a case-by case basis. Based on the total facility emissions, USM-Portland 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-464-71-N-M subject 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 Air Emission License A-464-71-M-R:

(16) Boilers #1, 2, & 3

- A. The total fuel use for Boilers #1, #2, & #3 shall not exceed 52,500 MMBtu on a 12 month rolling total. This fuel use shall consist of #4 and #6 fuel oil with a sulfur content not to exceed 1.5% (equivalent of 350,000 gallons), #2 fuel oil which meets the criteria in ASTM D396 (equivalent to 375,000 gallons), and natural gas (equivalent to 52.5 MMscf). Compliance shall be demonstrated by fuel receipts and/or records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [06-096 CMR 115, BPT].
- B. Boilers #1 and #2 are permitted to fire #2, #4 and #6 Fuel Oil, as well as Natural Gas. Boiler #3 shall fire Natural Gas or #2 fuel oil only. [06-096 CMR 115, BPT]
- C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.20 fuel oil 0.05 nat gas	06-096 CMR 103, Section 2(A)(1), BPT
Boiler #2	PM	0.20 fuel oil 0.05 nat gas	06-096 CMR 103, Section 2(A)(1), BPT
Boiler #3	PM	0.20 fuel oil 0.05 nat gas	06-096 CMR 103, Section 2(A)(1), BPT

- D. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	Fuel Type	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	#4/#6 fuel	2.24	2.24	17.65	4.11	0.37	0.12
	#2 fuel	2.24	2.24	5.64	1.60	0.40	0.04
	Nat. gas	0.56	0.56	0.01	1.12	0.94	0.06
Boiler #2	#4/#6 fuel	2.24	2.24	17.65	4.11	0.37	0.12
	#2 fuel	2.24	2.24	5.64	1.60	0.40	0.04
	Nat. gas	0.56	0.56	0.01	1.12	0.94	0.06
Boiler #3	#2 fuel	3.66	3.66	9.22	2.61	0.65	0.07
	Nat. gas	0.92	0.92	0.01	1.83	1.54	0.10

- E. Visible emissions from the common stack serving Boilers #1 and #2 shall not exceed 30% opacity on a 6-minute block average, except for no more than three (3), six (6) minute block averages in a 3-hour period when firing fuel oil. [06-096 CMR 101]
- F. Visible emissions from the common stack serving Boilers #1 and #2 shall not exceed 10% opacity on a 6-minute block average, except for no more than one (1), six (6) minute block average in a 3-hour period when firing natural gas. [06-096 CMR 101]
- G. Visible emissions from Boiler #3 shall not exceed 10% opacity on a 6-minute block average, except for no more than one (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

The following is a new condition:

- (1) USM 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 7th DAY OF December, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Beth Naguski*
BETH NAGUSKI, 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: 10/20/2010

Date of application acceptance: 11/16/2010

Date filed with the Board of Environmental Protection:

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

