

University of Maine System  
 Cumberland County  
 Portland, Maine  
 A-464-71-J-R/A (SM)

**Departmental  
 Findings of Fact and Order  
 Air Emission License**

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-Portland) has applied to renew its Air Emission License permitting the operation of emission sources associated with its Portland, Maine Campus. USM-Portland has also requested that the license be amended to increase the fuel limit for #6 fuel oil **from** 300,000 gallons/year **to** 350,000 gallons/year, and to allow the firing of #2, #4, #6 and natural gas in Boilers #1, #2, and #3.

B. Emission Equipment

USM-Portland is authorized to operate the following equipment:

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Max.Capacity (MMBtu/hr)</u></b>	<b><u>Max. Firing Rate</u></b>	<b><u>Fuel Type, % sulfur</u></b>	<b><u>Stack #</u></b>	<b><u>Location</u></b>
Boiler #1	11.2	75 gal/hr	#4/#6 fuel oil, 2.0% #2 fuel oil, 0.35% natural gas	1	30 Durham St.
Boiler #2	11.2	75 gal/hr	#4/#6 fuel oil, 2.0% #2 fuel oil, 0.35% natural gas	1	30 Durham St.
Boiler #3	18.3	121 gal/hr 130 gal/hr 17,942 scf/hr	#4/#6 fuel oil, 2.0% #2 fuel oil, 0.35% natural gas	1	30 Durham St.
Boiler #4	4.2	4112 scf/hr	Natural Gas	2	645 Congress St.
Boilers #5, 6, 7	3.0 (total)	2942 scf/hr	Natural Gas	3,4,5	310 Forest Ave.
Boiler #8	2.0	14.3 gal/hr	#2 fuel oil, 0.5%	6	25 Bedford St.
Boiler #9	4.8	34.3 gal/hr	#2 fuel oil, 0.5%	7	46 Bedford St.
Boiler #10	1.1	7.9 gal/hr	#2 fuel oil, 0.5%	8	68 High St.
Boiler #11	1.5	1471 scf/hr	Natural Gas	12	66 Falmouth St.
Boilers #12, 13	2.0 (total)	1961 scf/hr	Natural Gas	13,14	66 Falmouth St.

Boiler #14	1.0	980 scf/hr	Natural Gas	16	310 Forest Ave.
Emergency Generator #1	0.66	4.7 gal/hr	Diesel, 0.05%	9	Payson Smith Hall
Emergency Generator #2	0.62	600 scf/hr	Natural Gas	10	76 Falmouth St.
Emergency Generator #3	2.88	20.8 gal/hr	Diesel, 0.05%	11	310 Forest Ave.
Emergency Generator #4	5.67	5569 scf/hr	Natural Gas	15	66 Falmouth St.
Emergency Generator #5	0.86	9.15 gal/hr	Propane	17	88 Bedford St.

USM operates six tanks: below ground Tanks #1 and #2, and above ground Tanks #3, #4, #5 and #6. The tanks store #6 and #2 fuel oil/diesel and range in capacity from <math>1\text{ m}^3</math> to <math>56\text{ m}^3</math>. Due to the type of material stored in the tanks, and that the individual tank capacities are less than <math>75\text{ m}^3</math>, the tanks are included in the license for inventory purposes only.

C. Application Classification

The application for USM-Portland includes the licensing of increased emissions from the increase in the annual limit for #6 fuel oil. 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 are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level</u>
PM	6.46	7.21	0.75	100
PM <sub>10</sub>	6.46	7.21	0.75	100
SO <sub>2</sub>	49.8	57.7	7.9	100
NO <sub>x</sub>	24.7	26.6	1.9	100
CO	3.70	3.82	0.12	100
VOC	0.60	0.61	0.01	50

This modification is determined to be a minor modification and has been processed as such.

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 Chapter 100 of the Air Regulations. 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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1, #2, and #3

Boilers #1, #2, and #3 fire #6 fuel oil and were each installed prior to 1978. The boilers are therefore not subject to New Source Performance Standards (NSPS) 40 CFR 60 Subpart Dc, for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

USM is concerned that their fuel storage Tank #1 will not be usable for much longer. This tank stores #6 fuel oil for use in Boilers #1, #2 and #3. USM plans to replace the burner on Boiler #3 in January 2005, to allow the unit to fire #2, #4/#6 fuel or natural gas. In the event that the tank fails, Boiler #3 may be fired with #2 fuel that is trucked on-site. USM would then likely replace the burners in Boilers #1 and #2 to allow for #2, #4/#6 or natural gas to be used. Therefore Boilers #1, #2 and #3 are licensed to fire #2 fuel with a sulfur content not to exceed 0.35%, #6 fuel with a sulfur content not to exceed 2.0%, and natural gas.

A summary of the BPT analysis for Boilers #1 (11.2 MMBtu/hr), #2 (11.2 MMBtu/hr), and #3 (18.3 MMBtu/hr) located at 30 Durham St. is the following:

1. The total fuel use for Boilers #1, 2, & 3 shall not exceed 350,000 gal/year of #6 fuel oil, based on a 12 month rolling total, with a sulfur content not to exceed 2.0% by weight. The boilers may also fire 375,000 gallons of #2 fuel with a sulfur content not to exceed 0.35% instead of the #6 fuel, or 52.5 million scf of natural gas instead of the #6 or #2 fuel. USM shall submit an application for a minor revision before replacing the burners in Boiler #1 or Boiler #2.
2. Chapter 106 regulates fuel sulfur content.
3. Chapter 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
4. NOx emission limits are based on previous licensed limits.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from the combined stack of Boilers #1, 2, & 3 shall not exceed 30% opacity on a 6-minute block average, except for no more than three 6-minute block averages in a 3-hour period.

C. Boilers #4, #5, #6, #7, #11, #12, #13 and #14

Boilers #4, #5, #6, #7, #11, #12, #13 and #14 fire natural gas. None of the boilers are subject to NSPS Subpart Dc due to their small sizes. A summary of the BPT analysis for Boiler #4 (4.2 MMBtu/hr), located at 645 Congress St.; Boilers #5, #6, and #7 (3.0 MMBtu/hr total), located at 310 Forest Ave.; Boiler #11 (1.5 MMBtu/hr), and Boilers #12 and #13 (2.0 MMBtu/hr total), located at 66 Falmouth St; and Boiler #14 (1.0 MMBtu/hr), located at 310 Forest Ave., is the following:

1. The total fuel use for Boilers #4, #5, #6, #7, #11, #12, #13 and #14 shall not exceed 15 million scf/year of natural gas, on a 12 month rolling total.
2. PM limits for Boilers #4 are regulated by Chapter 103. PM limits for Boilers #5, #6, and #7 are based on previously licensed emissions. PM limits for Boilers #11, #12, #13 and #14 are based on AP-42 data dated 7/98. The PM<sub>10</sub> emission limits are derived from the PM limits.
3. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 2/98.
4. Visible emissions from each of the stacks serving Boilers #4, #5, #6, #7, #11, #12, #13 and #14 shall not exceed 10% opacity on a 6-minute block average, except for no more than one 6-minute block average in a 3-hour period.

D. Boilers #8, #9, and #10

Boilers #8, #9, and #10 fire #2 fuel oil and were installed in 2001, 1997 and 1974, respectively. The boilers are therefore not subject to New Source Performance Standards (NSPS) 40 CFR 60 Subpart Dc, for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989. A summary of the BPT analysis for Boiler #8 (2.0 MMBtu/hr), located at 25 Bedford St.; Boiler #9 (4.8 MMBtu/hr), located at 46 Bedford St.; and Boiler #10 (1.1 MMBtu/hr), located at 68 High St., is the following:

1. The total fuel use for Boilers #8, #9, and #10 shall not exceed 70,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a sulfur content not to exceed 0.5% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO<sub>2</sub> determined a more stringent limit of 0.5% was appropriate and shall be used.
3. PM limits for Boiler #9 are regulated by Chapter 103. PM limits for Boilers #8 and #10 are based on previously licensed emission limits. The PM<sub>10</sub> emission limits are derived from the PM limits.
4. NO<sub>x</sub> emission limits are based on data from similar #2 fired boilers of this size.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from each of the stacks serving Boilers #8, #9, and #10 shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

E. Emergency Generators #1, #2, #3, #4 and #5

USM-Portland operates five generators for emergency electrical generation.

‘Emergency’ is defined in Chapter 100 and throughout this document as:

“... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

1. Diesel Generators #1 and #3

Generators #1 and #3 are diesel fired units installed in 1999 and 1992, respectively. A summary of the BPT analysis for Generator #1 (0.66 MMBtu/hr), located in Payson Smith Hall, and Generator #3 (2.88 MMBtu/hr) is the following:

- i. Generators #1 and #3 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
- ii. The emergency generators shall each be limited to 500 hr/year of operation based on a 12 month rolling total.
- iii. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO<sub>2</sub> determines more stringent limits of 0.05% for diesel is appropriate and shall be used.
- iv. PM<sub>10</sub>, NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96. PM limits are based on the PM<sub>10</sub> limits.
- v. Visible emissions from each diesel fired emergency generator shall not exceed 20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period.

2. Natural Gas Generators #2 and #4

Generators #2 and #4 are natural gas fired units installed in 1968 and 2002, respectively. A summary of the BPT analysis for Generator #2 (0.62 MMBtu/hr), located at 76 Falmouth St. and Generator #4 (5.67 MMBtu/hr), located at 66 Falmouth St. is the following:

- i. Generators #2 and #4 shall fire only natural gas.
- ii. The emergency generators shall each be limited to 500 hr/year of operation based on a 12 month rolling total.
- iii. PM limits for Generator #4 are regulated by Chapter 103. PM limits for Generator #2 are based on AP-42 data dated 7/00. PM<sub>10</sub> limits are based on the PM limits.

- iv. SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
- v. Visible emissions from each natural gas fired emergency generator shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block averages in a 3-hour period.

3. Propane Generator #5

Generator #5 is a propane fired unit installed in 2003. A summary of the BPT analysis for Generator #5 (0.86 MMBtu/hr) is the following:

- i. Generators #5 shall fire only propane.
- ii. The emergency generators shall each be limited to 500 hr/year of operation based on a 12 month rolling total.
- iii. PM limits for Generator #5 are regulated by Chapter 103. PM<sub>10</sub> limits are based on the PM limits.
- iv. SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
- v. Visible emissions from the propane fired emergency generator shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block averages in a 3-hour period.

F. Annual Emission Restrictions

Annual Emissions are calculated based on the following:

- 350,000 gallons per year of #6 fuel oil, on a 12-month rolling total basis, and with a sulfur content not to exceed 2.0% by weight, (or equivalent amounts of #2 fuel with a sulfur content not to exceed 0.35% or equivalent amounts of natural gas) to be used in Boilers #1, #2 and #3;
- 15 million scf/year of natural gas to be used in Boilers #4, #5, #6, #7, #11, #12, #13, and #14 ;
- 70,000 gallons per year of #2 fuel oil, on a 12-month rolling total basis, and with a sulfur content not to exceed 0.5% by weight, to be used in Boilers #8, #9 and #10 ;
- 500 hours of operation for each of: Generators #1, and #3, firing diesel fuel with a sulfur content not to exceed 0.05% by weight; Generators #2 and #4, firing natural gas; and Generator #5, firing propane.

USM-Portland shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<b><u>Pollutant</u></b>	<b><u>Tons/Year</u></b>
PM	7.21
PM <sub>10</sub>	7.21
SO <sub>2</sub>	57.7
NO <sub>x</sub>	26.6
CO	3.82
VOC	0.61

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<b><u>Pollutant</u></b>	<b><u>Tons/Year</u></b>
PM	50
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the above 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-J-R/A subject the following conditions:

## 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 MRSA §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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 MRSA §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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.
- [MEDEP Chapter 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.

[MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 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. [MEDEP Chapter 115]

#### **SPECIFIC CONDITIONS**

- (16) Boilers #1, 2, & 3
- A. Fuel use for Boilers #1, #2 and #3 shall not exceed 350,000 gallons/year of #6 fuel oil, on a 12-month rolling total basis and with a maximum sulfur content of 2.0% by weight *or* 375,000 gallons/year of #2 fuel oil with a maximum sulfur content of 0.35% by weight instead of the #6 fuel *or* 52.5 million scf of natural gas instead of the #2 or #6 fuel oil. 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. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]
- B. USM shall submit an application to the Department and receive a minor revision to its license before modifying the burners in Boilers #1 and #2 to fire #2 fuel and natural gas. The application shall include burner firing rates for each type of fuel to be fired. [MEDEP Chapter 115, BPT]

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.2	MEDEP, Chapter 103, Section 2(A)(1)
Boiler #2	PM	0.2	MEDEP, Chapter 103, Section 2(A)(1)
Boiler #3	PM	0.2	MEDEP, Chapter 103, Section 2(A)(1)

D. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	Fuel Type	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)
Boiler #1	#6 fuel	3.64	3.64	38.25	9.1	0.61	0.04
	#2 fuel	3.64	3.64	7.18	5.46	0.65	0.03
	Nat. gas	3.66	3.66	0.02	1.80	1.51	0.1
Boiler #2		2.24	2.24	23.54	5.6	0.38	0.02
Boiler #3		3.36	3.36	35.31	8.4	0.56	0.03

E. Visible emissions from Boilers #1, 2, & 3 shall not exceed 30% opacity on a 6-minute block average, except for no more than three 6-minute block averages in a 3-hour period.

(17) Boilers #4, #5, #6, #7, #11, #12, #13 and #14

A. Total fuel use for Boilers #4, #5, #6, #7, #11, #12, #13, and #14 shall not exceed 15 million scf/year of natural gas, on a 12-month rolling total basis. Compliance shall be demonstrated by fuel use records. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #4	PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)

C. Emissions shall not exceed the following [MEDEP Chapter 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)
Boiler #4	0.51	0.51	0.01	0.42	0.35	0.03
Boilers #5, #6, #7	0.36	0.36	0.01	0.30	0.25	0.02
Boiler #11	0.02	0.02	0.01	0.15	0.13	0.01
Boilers #12, #13	0.02	0.02	0.01	0.20	0.17	0.01
Boiler #14	0.01	0.01	0.01	0.10	0.09	0.01

D. Visible emissions from each of the stacks serving Boilers #4, #5, #6, #7, #11, #12, #13 and #14 shall not exceed 10% opacity on a 6-minute block average, except for no more than one 6-minute block average in a 3-hour period.

(18) Boilers #8, #9 and #10

A. Fuel use for Boilers #8, #9 and #10 shall not exceed 70,000 gallons/year of #2 fuel oil, on a 12-month rolling total basis and with a maximum sulfur content of 0.5% by weight. 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. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #9	PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)

C. Emissions shall not exceed the following [MEDEP Chapter 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)
Boiler #8	0.24	0.24	1.01	0.60	0.07	0.01
Boiler #9	0.58	0.58	2.42	1.44	0.18	0.02
Boiler #10	0.13	0.13	2.32	0.33	0.04	0.01

D. Visible emissions from each of the stacks serving Boilers #8, #9, and #10 shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

(19) Emergency Generators #1, #2, #3, #4 and #5

- A. USM Portland shall limit the each emergency generator to 500 hours/year of operation (based on a 12-month rolling total). Hour meters shall be maintained and operated on each generator. [MEDEP Chapter 115, BPT]
- B. The emergency generators shall be operated for emergency purposes only or for short periods to exercise the machines and keep them in operating order. A log documenting the date, time, and reason of operation for each emergency generator shall be kept. [MEDEP Chapter 115, BPT]
- C. Generators #1 and #3 shall fire diesel fuel with a sulfur content not to exceed 0.05% by weight. Generators #2 and #4 shall fire natural gas. Generator #5 shall fire propane. Compliance with the diesel fuel sulfur limit shall be based on fuel receipts and/or records from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. [MEDEP Chapter 115, BPT]
- D. Emissions shall not exceed the following:

Emission Unit	Pollutant	Lb/MMBtu	Origin and Authority
Generator #4	PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)

E. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM10 (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.21	0.21	0.04	2.91	0.63	0.23
Generator #2	0.01	0.01	0.01	2.53	0.20	0.08
Generator #3	0.90	0.90	0.15	12.7	2.74	1.10
Generator #4	0.68	0.68	0.01	23.2	1.80	0.67
Generator #5	0.01	0.01	0.01	3.51	3.20	0.03

- F. Visible emissions from each diesel fired emergency generator shall not exceed 20% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period. [MEDEP Chapter 101]
- G. Visible emissions from each natural gas fired emergency generator shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block averages in a 3-hour period. [MEDEP Chapter 101]

- H. Visible emissions from the propane fired emergency generator shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block averages in a 3-hour period. [MEDEP Chapter 101]
- (20) **Facility Fuel Use**  
USM is licensed to fire the following, on a 12-month rolling total basis:
- A. 350,000 gallons/year of #6 fuel oil in Boilers #1, #2 and #3 (the steam plant);
  - B. 445,000 gallons/year of #2 fuel: 375,000 gallons for the steam plant (in the event that Tank #1 is no longer usable) and 70,000 gallons for the outlying buildings;
  - C. 67.5 million scf/year of natural gas: 52.5 million gallons/year for the steam plant (in the event that Tank #1 is no longer usable and USM replaces burners in Boilers #1 and #2 to allow the firing of natural gas) and 15 million scf/year for the outlying buildings; and,
  - D. fuel to allow 500 hours/year of operation for each generator.
- (21) **Emission Standard Violation Reporting**  
USM Portland 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 MRSA §605]
- (22) **Annual Emission Statement**  
In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:
- A. A computer program and accompanying instructions supplied by the Department; or,
  - B. A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in Chapter 137.

(23) **Air Toxics Emission Statement**

If USM Portland uses more than 64,725 gallons of #6 fuel oil in one calendar year, or otherwise exceeds the HAP thresholds in MEDEP Chapter 137, the licensee shall report, no later than July 1, every three years (2005, 2008, 2011, etc.), the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator  
Maine DEP - Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

(24) **Payment of Annual License Fee**

USM Portland shall pay the annual air emission license fee within 30 days of September 30 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA 341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, 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: September 22, 2004

Date of application acceptance: September 28, 2004

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

This Order prepared by Rachel E. Pilling, Bureau of Air Quality.