



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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ACTING COMMISSIONER

University of Maine System
Cumberland County
Portland, Maine
A-464-71-M-R (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.

B. Emission Equipment

USM-Portland is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Max.Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate</u>	<u>Fuel Type</u>	<u>Stack #</u>	<u>Location</u>
Boiler #1	11.2	75 gal/hr gal/hr scf/hr	#4, #6 fuel oil #2 fuel oil Natural gas	1	30 Durham St.
Boiler #2	11.2	75 gal/hr gal/hr scf/hr	#4, #6 fuel oil #2 fuel oil 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 fuel oil Natural gas	1	30 Durham 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	6	25 Bedford St.
Boiler #10	1.1	7.9 gal/hr	#2 fuel oil	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.
Boiler #15	1.0	971 scf/hr	Natural Gas	19	Bedford St.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04533-0017
(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

Electrical Generation Equipment

<u>Equipment</u>	<u>Max.Capacity (MMBtu/hr)</u>	<u>Firing Rate</u>	<u>Fuel Type % sulfur</u>	<u>Stack #</u>
Back-up Generator #1	0.66	4.7 gal/hr	Diesel, 0.05%	9
Back-up Generator #2	0.62	600 scf/hr	Natural Gas	10
Back-up Generator #3	2.88	20.8 gal/hr	Diesel, 0.05%	11
Back-up Generator #4	5.67	5569 scf/hr	Natural Gas	15
Back-up Generator #5	0.86	9.15 gal/hr	Propane	17
Back-up Generator #6	0.81	790 scf/hr	Natural gas	20

USM-Portland operates boiler #16 and #17 which are each less than 1.0 MMBtu/hr and are listed for inventory purposes only.

USM-Portland operates five tanks: below ground Tanks #1 and #2, and above ground Tanks #3, #5 and #6. The tanks store #6 and #2 fuel oil/diesel. Due to the type of material stored in the tanks, and that the individual tank capacities are less than 39,000 gallons, the tanks are included in the license for inventory purposes only.

C. Application Classification

The application for USM-Portland does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). 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 (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. Boilers #1, #2, and #3

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

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 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).
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content. However, the use of #4 or #6 fuel oil with a sulfur content not to exceed 1.5%, the use of #2 fuel oil which meets the criteria in ASTM D396, or the use of natural gas is more stringent than 06-096 CMR 106 and shall be considered BPT.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits when firing fuel oil. However, emissions from the combustion of Natural Gas are much lower than the limit set forth in 06-096 CMR 103. Therefore a PM emission limit of 0.05 lb/MMBtu when firing Natural Gas shall be considered BPT. The PM₁₀ limits are derived from the PM limits.
4. NO_x, CO and VOC emission limits are based upon AP-42 data dated 9/98 for the firing of #2, #4, and #6 fuel oil, and AP-42 data dated 7/98 for natural gas.
5. 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 (3), six (6) minute block averages in a 3-hour period when firing fuel oil.
6. Visible emissions from the combined stack of Boilers #1, 2, & 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 when firing natural gas.

C. Boilers #5, #6, #7, #11, #12, #13, #14 and #15

Boilers #5, #6, #7, #11, #12, #13, #14 and #15 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 Boilers #5, #6, and #7, located at 310 Forest Ave.; Boilers #11, #12, #13, and #15, located at 66 Falmouth St; and Boiler #14, located at 310 Forest Ave., is the following:

1. The total fuel use for Boilers #5, #6, #7, #11, #12, #13, #14 and #15 shall not exceed 15 million scf/year of natural gas, on a 12 month rolling total.
2. A PM emission limit of 0.05 lb/MMBtu shall be considered BPT for these boilers. The PM₁₀ emission limits are derived from the PM limits.
3. SO₂, NO_x, CO, and VOC emission limits are based upon AP-42 data dated 2/98.
4. Visible emissions from each of the stacks serving Boilers #5, #6, #7, #11, #12, #13, #14 and #15 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.

D. Boilers #8 and #10

Boilers #8 and #10 fire #2 fuel oil and were installed in 2001 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, located at 25 Bedford St., and Boiler #10, located at 68 High St., is the following:

1. The total fuel use for Boilers #8 and #10 shall not exceed 70,000 gal/year of #2 fuel oil, based on a 12 month rolling total, which meets the criteria in ASTM D396.
2. 06-096 CMR 106 regulates fuel sulfur content. However, the use of #2 fuel oil which meets the criteria in ASTM D396 is more stringent and shall be considered BPT.
3. A PM emission limit of 0.12 shall be considered BPT for Boilers #8 and #10. The PM₁₀ emission limits are derived from the PM limits.
4. NO_x 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 and #10 shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period.

E. Back-up Diesel Generators #1 and #3

Generators #1 and #3 are diesel fired units installed in 1999 and 1992, respectively. NSPS 40 CFR, Part 60, Subpart IIII *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* states that a

compression ignition engine is new if installed after June 12, 2006. Generators #1 and #3 were installed prior to this date and are therefore not subject to 40 CFR, Part 60, Subpart III.

National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR, Part 63, Subpart ZZZZ considers a compression ignition new if installed after June 12, 2006. Generators #1 and #3 are therefore considered existing compression ignition engines at an area source of Hazardous Air Pollutants (HAPs). They are therefore exempt from the requirements found in 40 CFR, Part 63, Subpart ZZZZ per 40 CFR, 63.6590(b)(3).

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.

A summary of the BPT analysis for Generator #1 and Generator #3 is the following:

1. Generators #1 and #3 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. The emergency generators shall each be limited to 500 hr/year of operation based on a 12 month rolling total.
3. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT analysis for SO₂ determines more stringent limits of 0.05% for diesel is appropriate and shall be used.
4. A PM emission limit of 0.12 lb/MMBtu shall be considered BPT. PM₁₀ limits are based on the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. 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 (2), six (6) minute block averages in a 3-hour period.

F. Back-up Natural Gas Generators #2 and #4

Generators #2 and #4 are natural gas fired units installed in 1968 and 2002, respectively. NSPS 40 CFR, Part 60, Subpart JJJJ *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* states that a spark ignition engine is new if installed after January 1, 2009. Generators #2 and #4 were installed prior to this date and are therefore not subject to 40 CFR, Part 60, Subpart JJJJ.

National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR, Part 63, Subpart ZZZZ considers a spark ignition new if installed after June 12,

2006. Generators #2 and #4 are therefore considered existing spark ignition engines at an area source of Hazardous Air Pollutants (HAPs). They are therefore exempt from the requirements found in 40 CFR, Part 63, Subpart ZZZZ per 40 CFR, 63.6590(b)(3).

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.

A summary of the BPT analysis for Generator #2 and Generator #4 is the following:

1. Generators #2 and #4 shall fire only natural gas.
2. The emergency generators shall each be limited to 500 hr/year of operation based on a 12 month rolling total.
3. 06-096 CMR 106 regulates fuel sulfur content. However, the use of natural gas is more stringent and shall be considered BPT.
4. PM limits for Generator #4 are regulated by 06-096 CMR 103. A PM emission limit of 0.12 lb/MMBtu shall be considered BPT for Generator #2. PM₁₀ limits are based on the PM limits.
5. SO₂, NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. 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.

G. Back-up Propane Generator #5

Generator #5 is a propane fired unit installed in 2003 and is considered an existing spark ignition engine at an area source of HAPs. It is therefore not subject to the requirements found in NSPS 40 CFR, Part 60, Subpart JJJJ, or the NESHAP 40 CFR, Part 63, Subpart ZZZZ.

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.

A summary of the BPT analysis for Generator #5 is the following:

1. Generator #5 shall fire only propane.
2. The emergency generator shall be limited to 500 hr/year of operation based on a 12 month rolling total.

3. 06-096 CMR 106 regulates fuel sulfur content. However, the use of propane is more stringent and shall be considered BPT.
4. PM limits for Generator #5 are regulated by Chapter 103. PM₁₀ limits are based on the PM limits.
5. SO₂, NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. 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 (1), six (6) minute block average in a 3-hour period.

H. Back-up Natural Gas Generator #6

Generator #6 is a natural gas fired unit installed in 2009 and is considered a new spark ignition engine at an area source of HAPs. It is therefore subject to the requirements found in NSPS 40 CFR, Part 60, Subpart JJJJ. Because Generator #6 is subject to Subpart JJJJ, it is exempt from the requirements in the NESHAP 40 CFR, Part 63, Subpart ZZZZ per 40 CFR, 63.6590(c). A summary of the BPT analysis for Generator #6 is the following:

Emergency Generator for the NSPS applicable generators is defined as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary engines used to pump water in the case of fire or flood. Stationary engines used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Additional requirements for the NSPS generators include, but are not limited to:

- Generator #6 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. The generator shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
 - Generator #6 shall be equipped with a non-resettable hour meter.
 - USM-Portland shall operate Generator #6 in accordance with the manufacturer's written instructions. USM-Portland shall not change settings that are not approved in writing by the manufacturer.
1. Generators #6 shall fire only natural gas.
 2. A PM emission limit of 0.05 lb/MMBtu shall be considered BPT. PM₁₀ limits are based on the PM limits.

3. 06-096 CMR 106 regulates fuel sulfur content. However, the use of natural gas is more stringent and shall be considered BPT.
4. SO₂, NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
5. Visible emissions from Generator #6 shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period.

I. Annual Emission Restrictions

Annual Emissions are calculated based on the following:

1. The worst-case scenario of firing 350,000 gallons of #6 fuel oil, on a 12-month rolling total basis, for PM, SO₂, NO_x, and VOC; and firing an equivalent amount of natural gas, for CO.
2. 15 million scf/year of natural gas to be used in Boilers #5, #6, #7, #11, #12, #13, #14, and #15.
3. 70,000 gallons per year of #2 fuel oil, to be used in Boilers #8 and #10.
4. 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, #4 and #6, 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 Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #1, #2, and #3	5.25	5.25	41.37	9.63	2.21	0.28
Natural Gas Boilers	0.38	0.38	0.01	0.75	0.63	0.04
#2 Fuel Oil Boilers	0.59	0.59	2.47	0.70	0.18	0.02
Generator #1	0.02	0.02	0.01	0.73	0.16	0.06
Generator #2	0.01	0.01	0.01	0.49	0.06	0.02
Generator #3	0.09	0.09	0.04	3.18	0.68	0.25
Generator #4	0.07	0.07	0.01	4.49	0.55	0.17
Generator #5	0.01	0.01	0.01	0.88	0.07	0.01
Generator #6	0.01	0.01	0.01	0.64	0.08	0.02
Total TPY	6.43	6.43	43.94	21.49	4.62	0.87

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:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	50
PM ₁₀	25
SO ₂	50
NO _x	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-M-R 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.

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) 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. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT].
- B. 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

C. 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	#4/#6 fuel	3.66	3.66	28.84	6.71	0.61	0.20
	#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

D. Visible emissions from the common stack serving Boilers #1, 2, & 3 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.

E. Visible emissions from the common stack serving Boilers #1, 2, & 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 when firing natural gas.

(17) Boilers #5, #6, #7, #11, #12, #13, #14 and #15

A. Total fuel use for Boilers #5, #6, #7, #11, #12, #13, #14, and #15 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. [06-096 CMR 115, BPT]

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #5, #6, #7 (combined)	0.15	0.15	0.01	0.30	0.25	0.02
Boiler #11	0.08	0.08	0.01	0.15	0.13	0.01
Boilers #12, #13 (combined)	0.10	0.10	0.01	0.20	0.17	0.01
Boiler #14	0.05	0.05	0.01	0.10	0.08	0.01
Boiler #15	0.05	0.05	0.01	0.10	0.08	0.01

C. Visible emissions from each of the stacks serving Boilers #5, #6, #7, #11, #12, #13, #14, and #15 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]

(18) Boilers #8 and #10

- A. Fuel use for Boilers #8 and #10 shall not exceed 70,000 gallons/year of #2 fuel oil, on a 12-month rolling total basis which meets the criteria in ASTM D396. Compliance shall be demonstrated by fuel receipts and/or records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #8	0.24	0.24	1.01	0.29	0.07	0.01
Boiler #10	0.13	0.13	0.55	0.16	0.04	0.01

C. Visible emissions from each of the stacks serving Boilers #8 and #10 shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

(19) Emergency Generators #1, #2, #3, #4, #5 and #6

- A. USM Portland shall limit each emergency generator to 500 hours/year of operation (based on a 12-month rolling total). Non-resettable hour meters shall be maintained and operated on each generator. [06-096 CMR 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. [06-096 CMR 115, BPT]
- C. Generators #1 and #3 shall fire diesel fuel with a sulfur content not to exceed 0.05% by weight. Generators #2, #4, and #6 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 documenting the percent sulfur of the fuel. [06-096 CMR 115, BPT]

D. Emissions shall not exceed the following:

Emission Unit	Pollutant	Lb/MMBtu	Origin and Authority
Generator #4	PM	0.12	06-096 CMR 103, Section 2(B)(1)(a)

E. Emissions shall not exceed the following [06-096 CMR 115, 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 #1	0.08	0.08	0.03	2.91	0.63	0.23
Generator #2	0.03	0.03	0.01	1.97	0.24	0.07
Generator #3	0.35	0.35	0.15	12.70	2.74	1.01
Generator #4	0.28	0.28	0.01	17.97	2.19	0.68
Generator #5	0.01	0.01	0.01	3.51	0.28	0.03
Generator #6	0.04	0.04	0.01	2.57	0.31	0.10

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 (2), six (6) minute block averages in a 3-hour period. [06-096 CMR 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 (1), six (6) minute block average in a 3-hour period. [06-096 CMR 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 (1), six (6) minute block average in a 3-hour period. [06-096 CMR 101]

I. The emergency generators shall not be used for peak shaving or to participate in a demand response arrangement with a third party. [06-096 CMR 115, BPT]

(20) NSPS for Generator #6

A. Generator #6 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing, based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4243(d) and 06-096 CMR 115, BPT]

B. Generator #6 is subject to emission requirements set forth in 40 CFR 60, Subpart JJJJ. Compliance with these emission requirements shall be

demonstrated by certification from the manufacturer. [40 CFR 60, Subpart JJJJ]

- C. USM-Portland shall meet all requirements of 40 CFR Part 60, Subpart JJJJ for Generator #6.

(21) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

- (22) 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 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 30th DAY OF September, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brubaker
BETH NAGUSKA, 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: 12/18/2009

Date of application acceptance: 1/4/2010

Date filed with the Board of Environmental Protection:

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

