



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Maine Medical Center
Cumberland County
Scarborough, Maine
A-934-71-D-R

Departmental
Findings of Fact and Order
Air Emission License
Renewal

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., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Maine Medical Center (MMC) has applied to renew their Air Emission License permitting the operation of emission sources associated with their health services facility.

The equipment addressed in this license is located at Maine Medical Center's Scarborough, Maine Campus.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (cf/hr)	Fuel Type, % sulfur	Install. Date	Stack #
SSC-1	3.17	3,108	Natural Gas	2006/2007	1
SSC-2	3.17	3,108	Natural Gas	2006/2007	1
SSC-3	3.17	3,108	Natural Gas	2006/2007	2
SSC-4	3.17	3,108	Natural Gas	2006/2007	2
Hot Water Heater SSC-1	1.83	1,795	Natural Gas	2006/2007	3
Hot Water Heater SSC-2	1.83	1,795	Natural Gas	2006/2007	3
MMCRI-1	3.0	2,942	Natural Gas	2000	4
MMCRI-2	3.0	2,942	Natural Gas	2000	4
MMCRI-3	4.0	3,922	Natural Gas	2000	4

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MMCRI-4	5.5	5,240	Natural Gas	2008	7
100-1	2.1	2,059	Natural Gas	1994	5
100-2	3.4	3,333	Natural Gas	1994	5
96-1	1.2	1,177	Natural Gas	1999	6
96-2	1.2	1,177	Natural Gas	1999	6
96-3	1.2	1,177	Natural Gas	1999	6
96-4	1.2	1,177	Natural Gas	1999	6

Generators

<u>Equipment</u>	<u>Horse Power (HP) or KW</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type</u>
MMCRI -1	250	2.7	19.4	Diesel, 0.015%
MMCRI-2	335	2.66	19.4	Diesel, 0.015%
SSC-1	600	6.4	46.7	Diesel, 0.015%

C. Application Classification

The application for MMC 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 (as amended).

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.

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 SSC-1, SSC-2, SSC-3 and SSC-4

MMC operates boilers SSC-1, SSC-2, SSC-3 and SSC-4 for heating needs and are located at their Scarborough Surgical Center. These boilers are identical and are rated at 3.17 MMBtu/hr each and fire natural gas. The boilers were installed in 2006/2007. Boilers SSC-1 and SSC-2 exhaust through stack #1, boilers SSC-3 and SSC-4 exhaust through stack #3.

Due to their size, the boilers are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BACT/BPT Findings

The BACT/BPT emission limits for the boiler were based on the following:

Natural gas

PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 103

SO₂ – 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

NO_x – 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

CO – 84 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

VOC – 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

Opacity – Visible emissions from the boilers firing natural gas shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use both on a monthly and calendar year basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

C. Hot Water Heater HWH SSC-1 and HWH SSC-2

MMC operates hot water heaters HWH SSC-1 and HWH SSC-2 for hot water needs and are located at their Scarborough Surgical Center. HWH SSC-1 and HWH SSC-2 are identical and are rated at 1.83 MMBtu/hr and fire natural gas. Hot water heaters HWH SSC-1 and HWH SSC-2 were installed in 2006/2007. Hot water heaters HWH SSC-1 and HWH SSC-2 exhaust through common stack #2.

1. BACT/BPT Findings

The BACT/BPT emission limits for the boilers were based on the following:

Natural gas

PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 103

SO₂ – 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

NO_x – 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

CO – 84 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

VOC – 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

Opacity – Visible emissions from the hot water heaters firing natural gas shall not exceed an opacity of 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

D. Boilers MMCRI-1, MMCRI-2, MMCRI-3 and MMCRI-4

MMC operates boilers MMCRI-1, MMCRI-2 MMCRI-3 and MMCRI-4 which are located at the Research Center and are used for heat and hot water needs. Boilers MMCRI-1 and MMCRI-2 are identical and are rated at 3.0 MMBtu/hr and fire natural gas. Boiler MMCRI-3 is rated at 4.0 MMBtu/hr and fires natural gas. Boiler MMCRI-4 is rated at 5.5 MMBtu/hr and also fires natural gas. MMCRI-1, MMCRI-2 and MMCR-3 were installed in 2000. Boiler MMCRI-4 was installed in 2008. MMCRI-1 and MMCRI-2 exhaust through stack #1, MMCRI-3 and MMCRI-4 exhaust through stack #2.

Due to their size, the boilers are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BACT/BPT Findings

The BACT/BPT emission limits for the boilers were based on the following:

Natural gas

PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 103

SO₂ – 0.6 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

NO_x – 100 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

CO – 84 lb/MMscf: AP-42, Table 1.4-1 (dated 7/98)

VOC – 5.5 lb/MMscf: AP-42, Table 1.4-2 (dated 7/98)

Opacity – Visible emissions from the boilers firing natural gas shall not exceed an opacity of 10% 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. Boilers 100-1, 100-2, 96-1, 96-2, 96-3 and 96-4.

MMC operates boilers 100-1 and 100-2 that are located at the Ambulatory Health services Building and Medical Office Building and are used for heat and hot water needs. Boilers 100-1 is rated at 2.1 MMBtu/hr and boiler 100-2 is rated at 3.4 MMBtu/hr and fire natural gas. Boilers 96-1, 96-2, 96-3 and 96-4 each are rated at 1.2 MMBtu/hr and fire natural gas. Boilers 100-1 and 100-2 were installed in 1994 and exhaust through stack #1. Boilers 96-1 through 96-4 were installed in 1999 as part of the modular units and exhaust through stack #1.

The BPT emission limits for the boilers are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler SSC 1-4 (each) (3.17 MMBtu/hr) Natural gas	0.16	0.16	0.01	0.32	0.26	0.02
Hot Water Heater HWH SSC 1-2 (each) (1.83 MMBtu/hr) Natural gas	0.02	0.02	0.01	0.18	0.16	0.016
Boiler MMCRI-1-2 (each) (3.0 MMBtu/hr) Natural gas	0.15	0.15	0.01	0.28	0.24	0.01
Boiler MMCRI-3 (4.0 MMBtu/hr) Natural gas	0.2	0.2	0.01	0.4	0.33	0.03
Boiler MMCRI-4 (5.5 MMBtu/hr) Natural gas	0.28	0.28	0.01	0.52	0.44	0.03
Boiler 100-1 (2.1 MMBtu/hr) Natural gas	0.02	.02	0.01	0.20	0.18	0.02
Boiler 100-2 (3.4 MMBtu/hr) Natural gas	0.17	0.17	0.01	0.34	0.28	0.02
Boiler 96-1-4 (each) (1.2 MMBtu/hr) Natural gas	0.01	0.01	0.01	0.12	0.10	0.01

F. Emergency Generators MMCRI-1

MMC operates MMCRI-1 emergency generator rated at 2.66 MMBtu/hr and fires diesel. Emergency generator MMCRI-1 was manufactured in 2000.

1. BACT/BPT Findings

The BACT/BPT emission limits for the generator is based on the following:

Diesel

PM/PM₁₀ – 0.31 lb/MMBtu from AP-42 Table 3.3-1 (dated 10/96)

SO₂ – based on firing 0.0015% sulfur, 0.0015 lb/MMBtu

NO_x – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);

CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);

VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);

Opacity – Visible emissions from the diesel emergency generator 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.

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator MMCRI-1 (2.7 MMBtu/hr) Diesel	0.324	0.324	0.0015	11.91	2.57	0.97

Emergency generator MMCRI-1 shall be limited to 500 hours of operation a year, based on a 12 month rolling total. MMC shall keep records of the hours of operation for each unit.

2. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is not applicable to the emergency generator listed above. The unit is considered a existing, emergency stationary reciprocating internal combustion engine at an area HAP source, however is considered exempt from the requirements of Subpart ZZZZ since it is categorized as a residential, commercial, or institutional emergency engine

G. Emergency Generators MMCRI-2 and SSC-1

MMC operates MMCRI-2 and the SSC-1 emergency generators rated at 2.7 MMBtu/hr and 6.4 MMBtu/hr and fire diesel. The generators were manufactured in 2008 and 2006 respectively.

1. BACT/BPT Findings

The BACT/BPT emission limits for the MMCRI-2 generator are based on the following:

Diesel

PM/PM₁₀ – 0.12 lb/MMBtu based on manufacturers data

SO₂ –based on firing 0.0015% sulfur, 0.0015 lb/MMBtu

NO_x – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

Opacity – Visible emissions from the MMCRI-2 emergency generator 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.

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator MMCRI-2 (2.66 MMBtu/hr) diesel, 0.0015% S	0.10	0.10	0.14	2.27	0.20	0.08

The BACT/BPT emission limits for the ASC-1 generator are based on the following:

Diesel

PM/PM₁₀ – 0.12 lb/MMBtu based on 06-096 CMR 103

SO₂ –based on firing 0.0015% sulfur, 0.0015 lb/MMBtu

NO_x – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96)

Opacity – Visible emissions from ASC-1 emergency generator 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.

Unit	PM (lb/hr)	PM10 (lb/hr)	SO2 (lb/hr)	NOx (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator SSC-1 (6.4 MMBtu/hr) diesel, 0.0015% S	0.768	0.768	0.0096	28.224	6.1	2.304

Each of the emergency generators shall be limited to 500 hours of operation a year, based on a 12 month rolling total. MMC shall keep records of the hours of operation for each unit.

2. 40 CFR Part 60, Subpart III

The federal regulation 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is applicable to the emergency generators listed above since the units were ordered after July 11, 2005 and manufactured after April 1, 2006. By meeting the requirements of Subpart III, the units also meet the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ.

Emergency Definition:

Emergency stationary internal combustion engine is defined in 40 CFR Part 60, Subpart III as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE 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 ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE 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.

40 CFR Part 60, Subpart III Requirements:

The generators shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

The diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 CFR §60.4207(b)]

A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §60.4209(a)]

The generators shall be operated and maintained according to the manufacturer's written instructions or procedures developed by MMC that are approved by the engine manufacturer. MMC may only change those settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

The generators shall each be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). [40 CFR §60.4211(f)]

No initial notification is required for emergency engines. [40 CFR §60.4214(b)]

H. Annual Emissions

MMC 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 SSC 1- 4	2.8	2.8	0.18	5.61	4.56	0.35
HW Heaters SSC 1-2	0.18	0.18	0.09	1.56	1.40	0.09
Boilers MMRCI 1-2	1.31	1.31	0.09	0.56	2.10	0.14
Boiler MMCRI 3	0.88	0.88	0.04	0.4	1.45	0.13
Boiler MMCRI 4	1.23	1.23	0.04	0.52	1.93	0.13
Boiler 100-1	0.09	0.09	0.04	0.20	0.79	0.88
Boiler 100-2	0.74	0.74	0.04	0.34	1.23	0.88
Boilers 96 1-4	0.16	0.16	0.18	0.48	1.75	0.18
Gen SSC-1	0.06	0.06	0.04	2.48	0.05	0.02
Gen MMCRI-1	0.03	0.03	0.04	2.27	0.05	0.02
Gen MMCRI-2	0.19	0.19	0.83	15.32	1.53	0.10
Total TPY	7.68	7.68	0.85	23.16	16.83	1.33

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 is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

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

Based on the total facility licensed emissions, Maine Medical Center is below the emissions level required for modeling.

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-934-71-D-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-A. [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 SSC-1 through 4, HWH SSC-1&2, MMCRI-1 through 4, boiler 100-1, 100-2 and boilers 96-1 through 96-4**

A. Fuel

All of the boilers located at MMC's Scarborough facility shall fire natural gas. Compliance shall be demonstrated by fuel purchase records. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Boilers SSC 1-4	PM	0.05	06-096 CMR 103(2)(B)(1)(a) BACT
Boilers MMCRI 1-4	PM	0.05	06-096 CMR 103(2)(B)(1)(a) BACT
Boiler 100-2	PM	0.05	06-096 CMR 103(2)(B)(1)(a) BACT

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler SSC 1-4 (each) (3.17 MMBtu/hr) Natural gas	0.16	0.16	0.01	0.32	0.26	0.02
Hot Water Heater HWH SSC 1-2 (each) (1.83 MMBtu/hr) Natural gas	0.02	0.02	0.01	0.18	0.16	0.016
Boiler MMCRI-1-2 (each) (3.0 MMBtu/hr) Natural gas	0.15	0.15	0.01	0.28	0.24	0.01
Boiler MMCRI-3 (4.0 MMBtu/hr) Natural gas	0.2	0.2	0.01	0.4	0.33	0.03
Boiler MMCRI-4 (5.5 MMBtu/hr) Natural gas	0.28	0.28	0.01	0.52	0.44	0.03
Boiler 100-1 (2.1 MMBtu/hr) Natural gas	0.02	.02	0.01	0.20	0.18	0.02
Boiler 100-2 (3.4 MMBtu/hr) Natural gas	0.17	0.17	0.01	0.34	0.28	0.02
Boiler 96-1-4 (each) (1.2 MMBtu/hr) Natural gas	0.01	0.01	0.01	0.12	0.10	0.01

D. Visible Emissions

1. Visible emissions from each boiler firing natural gas 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]

(17) Emergency Generator MMCRI-1

A. Emergency generator MMCRI-1 is limited to 500 hours per year total operation, based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115]

B. The fuel oil sulfur content for emergency generator MMCRI-1 shall be limited to 0.0015% sulfur. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator MMCRI-1 (2.7 MMBtu/hr) Diesel	0.324	0.324	0.0015	11.91	2.57	0.97

D. Visible Emissions

1. Visible emissions from emergency generator MMCRI-1 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. [06-096 CMR 101]

(18) Emergency Generators MMCRI-2 and SSC-1

- A. Emergency generators MMCRI-2 and SSC-1 are each limited to 100 hours per year total operation, based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115] [40 CFR Part 60, Subpart IIII]

B. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
MMCRI-2	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
SSC-1	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

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

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator MMCRI-2 (2.66 MMBtu/hr) diesel, 0.0015% S	0.10	0.10	0.14	2.27	0.20	0.08
Generator SSC-1 (6.4 MMBtu/hr) diesel, 0.0015% S	0.768	0.768	0.0096	28.224	6.1	2.304

- D. Visible emissions from emergency generators MMCRI-2 and SSC-1 shall each 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]

E. Emergency generators MMCRI-2 and SSC-1 shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including the following:

1. The generators shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]

2. The diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115]
 3. A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §60.4209(a)]
 4. The generators shall each be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). These limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §60.4211(f) and 06-096 CMR 115]
 5. The generators shall be operated and maintained according to the manufacturer's written instructions or procedures developed by MMC that are approved by the engine manufacturer. MMC may only change those settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]
- (19) MMC 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 21st DAY OF October, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie R. Rife
PATRICIA W. AHO, 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: 12/10/10

Date of application acceptance: 12/21/10

Date filed with the Board of Environmental Protection:

This Order prepared by Kurt Tidd, Bureau of Air Quality.

