



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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**General Electric Company  
dba GE Energy  
Penobscot County  
Bangor, Maine  
A-404-71-U-R**

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

**FINDINGS OF FACT**

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 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

General Electric Company dba GE Energy (GE) has applied to renew their Air Emission License permitting the operation of emission sources associated with their steam turbine manufacturing facility.

GE operates equipment at two facilities in Bangor, Maine, one on Griffin Road and one on Maine Avenue. The Griffin Road facility consists of Buildings 10, 15, 20, 30, and 40. The Maine Avenue facility consists of Buildings 45, 50, 60, 70, 75, and 80. Due to operational demands and production needs, equipment may occasionally be moved from one facility to the other in an effort to run efficiently and optimize production.

**B. Emission Equipment**

GE has several insignificant activities, including fuel burning equipment and process equipment that do not need to be listed in the emissions equipment tables below. The equipment currently identified as insignificant activities has been included in GE's renewal license application. GE may add other insignificant activities as outlined in 06-096 CMR 115 without prior approval from the Department.

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(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 04769  
(207) 764-0477 FAX: (207) 760-3143

The following equipment is addressed in this air emission license:

**Boilers**

<u>Equipment</u>	<u>Maximum Heat Input (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Boiler #1	3.6	3530 scfh 25.7 gal/hr	natural gas distillate fuel, 0.5%	1993	Bldg 30, #1
Boiler #2	3.6	3530 scfh 25.7 gal/hr	natural gas distillate fuel, 0.5%	1993	Bldg 30, #2
Boiler #3	2.1	2059 scfh 15.0 gal/hr	natural gas distillate fuel, 0.5%	1981	Bldg 30, #3
Boiler #4	7.0	50.0 gal/hr	distillate fuel, 0.5%	1960	Bldg 20, #4
Boiler #5	5.0	4902 scfh 35.7 gal/hr	natural gas distillate fuel, 0.5%	2000	Bldg 10, #5
Boiler #6	5.0	4902 scfh 35.7 gal/hr	natural gas distillate fuel, 0.5%	2000	Bldg 10, #5
Boiler #7	3.4	3333 scfh 24.3 gal/hr	natural gas distillate fuel, 0.5%	1981	Bldg 45, #6
Boiler #8	3.4	3333 scfh 24.3 gal/hr	natural gas distillate fuel, 0.5%	1981	Bldg 45, #6
Boiler #9	3.4	3333 scfh 24.3 gal/hr	natural gas distillate fuel, 0.5%	1994	Bldg 45, #6

**Stress Relief Furnaces**

<u>Equipment</u>	<u>Maximum Heat Input (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Stress Relief Furnace #1	9.0	8824 scfh	natural gas, negligible	1995	Bldg 45, #453
Stress Relief Furnace #2	4.75	4657 scfh	natural gas, negligible	1997	Bldg 50, #511
Stress Relief Furnace #3	4.74	4647 scfh	natural gas, negligible	2001	Bldg 50, #512

**Emergency Generators**

<u>Equipment</u>	<u>Maximum Heat Input (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Generator #1	0.54	3.9 gal/hr	distillate fuel, 0.0015%	2002
Generator #2	1.0	1020 scfh	natural gas, negligible	April 2008

**Process Equipment**

<u>Equipment</u>	<u>Pollution Control Equipment</u>	<u>Location</u>
Thermal Spray Cells (3)	dust collector & HEPA filters	Bldg 80
Parts Washers	N/A	various
Misc VOC/HAP	N/A	various

**C. Application Classification**

The application for GE 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 currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the annual fuel limits on facility equipment and the HAP limits imposed upon the facility, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

**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.

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

GE operates nine boilers used to provide heat, hot water, and process steam. The boilers have capacities between 2.1 MMBtu/hr and 7.0 MMBtu/hr. They are all licensed to fire both natural gas and distillate fuel with the exception of Boiler #4 which fires only distillate fuel. All of these boilers were manufactured prior to 2001.

Boilers #5 and #6 share a combined stack (Bldg 10, #5) as do Boilers #7, #8, and #9 (Bldg 45, #6). All other boilers exhaust through their own stack.

1. BPT Findings

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

Natural Gas

- PM/PM<sub>10</sub> – 0.025 lb/MMBtu based on 06-096 CMR 115, BPT
- SO<sub>2</sub> – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO<sub>x</sub> – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98

Distillate Fuel

- PM/PM<sub>10</sub> – 0.12 lb/MMBtu based on 06-096 CMR 103
- SO<sub>2</sub> – based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur by weight)
- NO<sub>x</sub> – 20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10  
– 0.30 lb/MMBtu based on 06-096 CMR 115, BPT (Boiler #3 only)
- CO – 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10

The BPT emission limits for the boilers are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Boilers #1-#2 and #5-#9 (natural gas)	PM	0.025
Boilers #1-#2 and #4-#9 (distillate fuel)	PM	0.12

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 #1 (natural gas)	0.09	0.09	neg	0.35	0.29	0.02
Boiler #1 (distillate fuel)	0.43	0.43	1.81	0.51	0.13	0.01
Boiler #2 (natural gas)	0.09	0.09	neg	0.35	0.29	0.02
Boiler #2 (distillate fuel)	0.43	0.43	1.81	0.51	0.13	0.01
Boiler #3 (natural gas)	0.05	0.05	neg	0.21	0.17	0.01
Boiler #3 (distillate fuel)	0.25	0.25	1.06	0.63	0.08	0.01
Boiler #4 (distillate fuel)	0.84	0.84	3.53	1.00	0.25	0.02
Boiler #5 (natural gas)	0.13	0.13	neg	0.49	0.41	0.03
Boiler #5 (distillate fuel)	0.60	0.60	2.52	0.71	0.18	0.01
Boiler #6 (natural gas)	0.13	0.13	neg	0.49	0.41	0.03
Boiler #6 (distillate fuel)	0.60	0.60	2.52	0.71	0.18	0.01
Boiler #7 (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #7 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01
Boiler #8 (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #8 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01
Boiler #9 (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #9 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01

Visible emissions from each boiler stack shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

GE's facility shall be limited to 58.8 million scf/year of natural gas and 500,000 gal/year of distillate fuel. These limits include fuel use in the stress relief furnaces as well as the boilers.

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired at the facility shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

2. 40 CFR Part 60, Subpart Dc

Due to their size, none of the boilers are 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

3. 40 CFR Part 63, Subpart JJJJJ

Boilers #1 - #9 may be subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ).

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.[40 CFR Part 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however GE is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11223]

1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<b><i>Boilers with less frequent tune up requirements</i></b>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a

responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

(b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) After conducting the initial boiler tune-up, a Notification of Compliance Status was to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of

notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

C. Stress Relief Furnaces

GE operates three stress relief furnaces used to heat metal, creating flexibility for adjustments as needed. Stress Relief Furnaces #1, #2, and #3 are rated at 9.0, 4.75, and 4.74 MMBtu/hr and were manufactured in 1995, 1997, and 2001 respectively. The stress relief furnaces all fire natural gas and exhaust through separate stacks.

1. BPT Findings

The BPT emission limits for the stress relief furnaces were based on the following:

- PM/PM<sub>10</sub> – 0.025 lb/MMBtu based on 06-096 CMR 115, BPT
- SO<sub>2</sub> – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO<sub>x</sub> – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98

The BPT emission limits for the boilers are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Stress Relief Furnaces #1, #2, #3	PM	0.025

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Stress Relief Furnace #1	0.23	0.23	0.01	0.87	0.73	0.05
Stress Relief Furnace #2	0.12	0.12	neg	0.46	0.39	0.03
Stress Relief Furnace #3	0.12	0.12	neg	0.46	0.39	0.03

Visible emissions from each stress relief furnace stack shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

GE's facility shall be limited to 58.8 million scf/year of natural gas and 500,000 gal/year of distillate fuel. These limits include fuel use in the stress relief furnaces as well as the boilers.

2. 40 CFR Part 60, Subpart Dc

The stress relief furnaces do not heat water. They do not meet the definition of a "steam generating unit" and therefore 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

3. 40 CFR Part 63, Subpart JJJJJ

The stress relief furnaces do not heat water. They do not meet the definition of a "boiler" and therefore are not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ).

D. Emergency Generator #1

Generator #1 is rated at 0.54 MMBtu/hr and fires distillate fuel. Generator #1 was manufactured in 2002.

1. BPT Findings

The BPT emission limits for Generator #1 are based on the following:

PM/PM <sub>10</sub>	- 0.12 lb/MMBtu from 06-096 CMR 115, BPT
SO <sub>2</sub>	- combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO <sub>x</sub>	- 4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
CO	- 0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96
VOC	- 0.35 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96

The BPT emission limits for Generator #1 are the following:

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)
Generator #1	0.06	0.06	neg	2.38	0.51	0.19

Visible emissions from Generator #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.

2. 40 CFR Part 60, Subpart IIII

Generator #1 is an emergency generator which was manufactured prior to 2006. It is therefore not subject to 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*.

3. 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 applicable to Generator #1.

Generator #1 is considered an existing, emergency stationary reciprocating internal combustion engines at an area HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt this unit from the federal requirements.

a. Emergency Definition:

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE 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 RICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary RICE in emergency situations.

- (2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
- (i) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
  - (ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except provided in the following paragraphs:

- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution center.

- (ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  - (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - (e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Generators #1 shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all the requirements for non-emergency engines.

b. 40 CFR Part 63, Subpart ZZZZ Requirements:

(1) Operation and Maintenance Requirements

	<b>Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))</b>
Compression ignition (distillate fuel) units: <i>Generator #1</i>	<ul style="list-style-type: none"> <li>- Change oil and filter every 500 hours of operation or annually, whichever comes first;</li> <li>- Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and</li> <li>- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</li> </ul>

Generators #1 shall be operated and maintained according to the manufacturer's emission-related written instructions or facility shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

(2) Optional Oil Analysis Program

GE has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, GE must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

Non-resettable hour meters shall be installed and operated on Generator #1. [40 CFR §63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

(5) Annual Time Limit for Maintenance and Testing

Generator #1 shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

(6) Recordkeeping

GE shall keep records that include maintenance conducted on Generator #1 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If Generator #1 is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), GE shall

keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

(7) Requirements for Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

If GE operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

E. Emergency Generator #2

Generator #2 is rated at 1.0 MMBtu/hr and fires natural gas. Generator #2 was manufactured in April 2008.

1. BPT Findings

The BPT emission limits for Generator #2 are based on the following:

PM/PM<sub>10</sub> - 0.05 lb/MMBtu from 06-096 CMR 115, BPT  
SO<sub>2</sub> - Considered negligible for this equipment  
NO<sub>x</sub> - 0.847 lb/MMBtu from AP-42 Table 3.2-2 dated 7/00  
CO - 0.557 lb/MMBtu from AP-42 Table 3.2-2 dated 7/00  
VOC - 0.118 lb/MMBtu from AP-42 Table 3.2-2 dated 7/00

The BPT emission limits for Generator #2 are the following:

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)
Generator #2	0.05	0.05	neg	0.89	0.58	0.12

Visible emissions from Generator #2 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.

Generator #2 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Generator #2 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, GE shall keep records of the total hours of operation and the hours of emergency operation.

Emergency 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. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

2. 40 CFR Part 60, Subpart JJJJ

Generator #2 is an emergency generator which was manufactured prior to 2009. It is therefore not subject to 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*.

3. 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 applicable to Generator #2.

Generator #2 commenced construction (i.e. a purchase order was placed) after June 12, 2006. Therefore, Generator #2 is considered a new stationary RICE at an area HAP source.

Per 40 CFR Part 63.6590(c)(1), compliance for new stationary RICE is met by complying with 40 CFR Part 60, Subpart JJJJ. Since Generator #2 is not subject to 40

CFR Part 60, Subpart JJJJ, there are no applicable NESHAP requirements for Generator #2.

F. Thermal Spray Cells

GE operates three thermal spray cells. Each thermal spray cell is an enclosed, robotically operated coating process that uses powdered metal coatings and a High Velocity On Flame (HVOF) spray or plasma spray to transfer the coatings to metal parts. Each cell is equipped with a pulse jet dust collector equipped with high-efficiency non-fiber filters followed by a set of High Efficiency Particulate Arresting (HEPA) filters. This combination results in a 99.9% control of particulate matter (PM). At maximum production, the three thermal spray cells are estimated to emit approximately  $1.58 \times 10^{-3}$  lbs of PM per year, and therefore are a negligible source of metallic PM HAP.

1. 06-096 CMR 129

The thermal spray cells use exclusively powder-based coatings and are therefore exempt from 06-096 CMR 129, *Surface Coating Facilities* per Section (1)(E)(2).

2. 40 CFR Part 63, Subpart WWWW

The thermal spray cells are subject to 40 CFR Part 63, Subpart WWWW, *NESHAP: Area Source Standards for Plating and Polishing Operations*. The thermal spray cells are considered new thermal spraying operations since they were constructed after March 14, 2008. The requirements of Subpart WWWW are summarized below.

A. Equipment Standards

GE shall operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric, cartridge, or HEPA filter. The capture and control devices shall be operated according to the manufacturer's specifications and instructions. The manufacturer's operating instructions must be kept on-site at all times in a location where they can be easily accessed by the operators. [40 CFR Part 63.11507(f)(2)]

B. Management Practices

GE shall implement the following management practices:

1. Perform regular repair, maintenance, and preventive maintenance of equipment associated with the thermal spray cells as practicable. [40 CFR 63.11507(g)(6)]
2. Perform general good housekeeping. [40 CFR 63.11507(g)(9)]

3. Perform regular inspections to identify leaks and other opportunities for pollution prevention. [40 CFR 63.11507(g)(12)]

**C. Reporting and Recordkeeping**

1. GE shall keep records of the repair, maintenance, preventive maintenance, and equipment inspections to document compliance with the management practices listed above. [40 CFR 63.11509(e)(3)]
2. GE shall keep records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the required air pollution control equipment. [40 CFR 63.10(b)(2)(ii)]
3. GE shall prepare an annual certification of compliance report for the thermal spraying operation. These reports must be prepared every year, but do not need to be submitted unless a deviation from the requirements of Subpart WWWW has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report. [40 CFR 63.11509(c)]
4. The annual compliance report shall be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation occurred during the year, the annual compliance report shall be submitted, along with the deviation report, to the Department's regional inspector and to EPA and postmarked or delivered no later than January 31 of the year immediately following the reporting period. [40 CFR 63.11509(c)(7)]
5. The annual compliance report shall contain the following items:
  - a. A statement that the control system has been operated and maintained according to the manufacturer's specifications and instructions. [40 CFR 63.11509(c)(2)]
  - b. Any deviations from the compliance requirements specified in Subpart WWWW as well as the corrective action taken. [40 CFR 63.11509(d)]
6. Records and reports must be kept for a minimum of 5 years and kept on-site for a minimum of 2 years. [40 CFR 63.11509(f)]

**3. BPT Findings**

BPT for the thermal spray cells is determined to be compliance with the requirements set forth in 40 CFR Part 63, Subpart WWWW.

G. Parts Washers

GE operates various parts washers for miscellaneous cleaning and maintenance. The parts washers are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended) and records shall be kept documenting compliance.

H. Plant-Wide Emissions

VOC and HAP emissions from the facility result from miscellaneous plant-wide use of compounds mainly for parts cleaning and maintenance. GE shall keep records of VOC and HAP emissions on a calendar year total using data from Safety Data Sheets (SDS), tracking purchases of VOC/HAP containing material and estimating emissions from processes (such as the thermal spray cells) using a mass balance or other appropriate approach.

BPT for miscellaneous plant wide VOC and HAP emissions shall be a limit of 8.0 ton/year for VOC (excluding emissions from fuel burning equipment) and 8.0 ton/year for total HAP emissions. GE shall minimize emissions of VOC/HAP wherever possible through pollution prevention activities.

I. Annual Emissions

1. Total Annual Emissions

GE shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on the following:

- Firing 58.8 million scf/year of natural gas in the boilers and stress relief furnaces.
- Firing 500,000 gal/year of distillate fuel in the boilers.
- Operating the generators for 100 hr/year each.
- Facility-wide limits for VOC and HAP.

**Total Licensed Annual Emissions for the Facility**  
**Tons/year**  
(used to calculate the annual license fee)

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	Total HAP
Natural Gas Usage	0.8	0.8	0.1	2.9	2.5	0.2	—
Distillate Fuel Usage	4.2	4.2	17.6	5.0	1.3	0.1	—
Generator #1	—	—	—	0.1	0.1	—	—
Generator #2	—	—	—	0.1	0.1	—	—
Misc Usage	—	—	—	—	—	8.0	8.0
<b>Total TPY</b>	<b>5.0</b>	<b>5.0</b>	<b>17.7</b>	<b>8.1</b>	<b>4.0</b>	<b>8.3</b>	<b>8.0</b>

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, GE is below the major source threshold for CO<sub>2</sub>e, and no additional licensing requirements are needed to address GHG emissions at this time.

**III. AMBIENT AIR QUALITY ANALYSIS**

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

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

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

### 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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-404-71-U-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 emissions 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

In cases where a Federal rule established under 40 CFR Parts 60 or 63 is found to conflict with a Specific Condition of this license, the requirements of the Federal rule shall take precedence and the license condition shall be considered invalid.

(16) **Boilers**

A. Fuel Sulfur Limits

1. Prior to July 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the boilers shall be ASTM D396 compliant #2 fuel oil (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
2. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
3. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

B. Emissions shall not exceed the following:

<b>Emission Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
Boilers #1-#2 and #5-#9 (firing natural gas)	PM	0.025	06-096 CMR 115, BPT
Boilers #1-#2 and #4-#9 (firing distillate fuel)	PM	0.12	06-096 CMR 103§(2)(B)(1)(a)

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

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler #1 (natural gas)	0.09	0.09	neg	0.35	0.29	0.2
Boiler #1 (distillate fuel)	0.43	0.43	1.81	0.51	0.13	0.01
Boiler #2 (natural gas)	0.09	0.09	neg	0.35	0.29	0.2
Boiler #2 (distillate fuel)	0.43	0.43	1.81	0.51	0.13	0.01
Boiler #3 (natural gas)	0.05	0.05	neg	0.21	0.17	0.01
Boiler #3 (distillate fuel)	0.25	0.25	1.06	0.63	0.08	0.01
Boiler #4 (distillate fuel)	0.84	0.84	3.53	1.00	0.25	0.02
Boiler #5 (natural gas)	0.13	0.13	neg	0.49	0.41	0.03
Boiler #5 (distillate fuel)	0.60	0.60	2.52	0.71	0.18	0.01
Boiler #6 (natural gas)	0.13	0.13	neg	0.49	0.41	0.03
Boiler #6 (distillate fuel)	0.60	0.60	2.52	0.71	0.18	0.01
Boiler #7 (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #7 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01
Boiler # (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #8 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01
Boiler #9 (natural gas)	0.09	0.09	neg	0.33	0.28	0.02
Boiler #9 (distillate fuel)	0.41	0.41	1.71	0.49	0.12	0.01

D. Visible emissions from each boiler stack shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 115, BPT]

- E. Boiler MACT (40 CFR Part 63, Subpart JJJJJ)  
[incorporated under 06-096 CMR 115, BPT]
1. An Initial Notification submittal to EPA was due no later than January 20, 2014.  
[40 CFR Part 63.11225(a)(2)]
  2. The facility shall implement a boiler tune-up program to include the initial tune-up of applicable boilers. [40 CFR Part 63.11223]
    - (a) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<b><i>Boilers with less frequent tune up requirements</i></b>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of <5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

- (b) The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

3. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
  - (a) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
  - (b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
  - (c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
  - (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
  - (e) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
  - (f) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
4. After conducting the initial boiler tune-up, a Notification of Compliance Status was to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
5. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the

malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

(17) **Stress Relief Furnaces**

A. Emissions shall not exceed the following:

<b>Emission Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
Stress Relief Furnaces #1, #2, #3	PM	0.025	06-096 CMR 115, BPT

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

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Stress Relief Furnace #1	0.23	0.23	0.01	0.87	0.73	0.05
Stress Relief Furnace #2	0.12	0.12	neg	0.46	0.39	0.03
Stress Relief Furnace #3	0.12	0.12	neg	0.46	0.39	0.03

C. Visible emissions from each stress relief furnace stack shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 115, BPT]

(18) **Fuel Use Limits**

- A. GE shall be limited to firing 500,000 gal/year of distillate fuel in the boilers and stress relief furnaces combined on a calendar year basis. [06-096 CMR 115, BPT]
- B. GE shall be limited to firing 58.8 million scf/year of natural gas in the boilers and stress relief furnaces combined on a calendar year basis. [06-096 CMR 115, BPT]
- C. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 CMR 115, BPT]

(19) **Emergency Generator #1**

- A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115]
- B. The fuel sulfur content for Generator #1 shall be limited to 0.0015% sulfur by weight. 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 <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.06	0.06	neg	2.38	0.51	0.19

- D. Visible emissions from Generator #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]
- E. Generator #1 shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:
  - 1. As of May 3, 2013, GE shall meet the following operational limitations for Generator #1:
    - a. Change the oil and filter annually,
    - b. Inspect the air cleaner annually and replace as necessary, and
    - c. Inspect the hoses and belts annually and replace as necessary.

A log shall be maintained documenting compliance with the operational limitations.

[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 115]

- 2. Oil Analysis Program Option  
GE has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, GE must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

3. **Non-Resettable Hour Meter**  
A non-resettable hour meter shall be installed and operated on Generator #1.  
[40 CFR §63.6625(f)]
4. **Maintenance, Testing, and Non-Emergency Operating Situations**
  - a. Generator #1 shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise to supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §63.6640(f) and 06-096 CMR 115]
  - b. GE shall keep records that include maintenance conducted on Generator #1 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If Generator #1 is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the GE shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]
5. **Operation and Maintenance**  
Generator #1 shall be operated and maintained according to the manufacturer's emission-related written instructions or GE shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]
6. **Startup Idle and Startup Time Minimization**  
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engines' startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

7. Requirements For Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

If GE operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

(20) **Emergency Generator #2**

- A. Generator #2 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115]
- B. GE shall keep records that include maintenance conducted on Generator #2 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. [06-096 CMR 115, BPT]
- C. If Generator #2 is operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity, GE shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [06-096 CMR 115, BPT]

- D. The fuel sulfur content for Generator #2 shall be limited to 0.0015% sulfur by weight. 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]
- E. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM<sub>10</sub></u> <u>(lb/hr)</u>	<u>SO<sub>2</sub></u> <u>(lb/hr)</u>	<u>NO<sub>x</sub></u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Generator #2	0.05	0.05	neg	0.89	0.58	0.12

- F. Visible emissions from Generator #2 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 115, BPT]
- G. Generator #2 shall only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generator #2 shall not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity. [06-096 CMR 115, BPT]

(21) **Thermal Spray Cells**

Thermal Spray Cells #1, #2, and #3 shall meet the applicable requirements of 40 CFR Part 63, Subpart WWWW, including the following:

A. **Equipment Standards**

GE shall operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric, cartridge, or HEPA filter. The capture and control devices shall be operated according to the manufacturer's specifications and instructions. The manufacturer's operating instructions must be kept on-site at all times in a location where they can be easily accessed by the operators. [40 CFR Part 63.11507(f)(2)]

B. **Management Practices**

GE shall implement the following management practices:

1. Perform regular repair, maintenance, and preventive maintenance of equipment associated with the thermal spray cells as practicable. [40 CFR 63.11507(g)(6)]

2. Perform general good housekeeping. [40 CFR 63.11507(g)(9)]
3. Perform regular inspections to identify leaks and other opportunities for pollution prevention. [40 CFR 63.11507(g)(12)]

**C. Reporting and Recordkeeping**

1. GE shall keep records of the repair, maintenance, preventive maintenance, and equipment inspections to document compliance with the management practices listed above. [40 CFR 63.11509(e)(3)]
2. GE shall keep records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the required air pollution control equipment. [40 CFR 63.10(b)(2)(ii)]
3. GE shall prepare an annual certification of compliance report for the thermal spraying operation. These reports must be prepared every year, but do not need to be submitted unless a deviation from the requirements of Subpart WWWW has occurred during the reporting year, in which case, the annual compliance report must be submitted along with the deviation report. [40 CFR 63.11509(c)]
4. The annual compliance report shall be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation occurred during the year, the annual compliance report shall be submitted, along with the deviation report, to the Department's regional inspector and to EPA and postmarked or delivered no later than January 31 of the year immediately following the reporting period. [40 CFR 63.11509(c)(7)]

Annual compliance reports that need to be submitted should be sent to the addresses below:

Air Compliance Inspector  
Department of Environmental Protection  
106 Hogan Road, Suite 6  
Bangor, ME 04401

U.S. EPA Region 1  
Attn: Air Clerk  
5 Post Office Square, Suite 100  
Mail code: OES04-2  
Boston MA 02109-3912

5. The annual compliance report shall contain the following items:
  - a. A statement that the control system has been operated and maintained according to the manufacturer's specifications and instructions. [40 CFR 63.11509(c)(2)]
  - b. Any deviations from the compliance requirements specified in Subpart WWWW as well as the corrective action taken. [40 CFR 63.11509(d)]
6. Records and reports must be kept for a minimum of 5 years and kept on-site for a minimum of 2 years. [40 CFR 63.11509(f)]

(22) **VOC and HAP Limits**

- A. GE shall limit emissions of plant-wide VOCs (excluding emissions from fuel-burning equipment) to 8.0 ton/year on a calendar year basis. [06-096 CMR 115, BPT]
- B. GE shall limit emissions of plant-wide total HAPs to 8.0 ton/year on a calendar year basis. [06-096 CMR 115, BPT]
- C. GE shall keep records of the monthly and calendar year total emissions of VOC and total HAP. [06-096 CMR 115, BPT]
- D. GE shall minimize emissions of VOC and HAP wherever possible through pollution prevention activities. [06-096 CMR 115, BPT]

(23) **Parts Washers**

Parts washers at GE are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

- A. GE shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
  1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.
  1. GE shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
    - (i) Waste solvent shall be collected and stored in closed containers.
    - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until

dripping ceases, whichever is longer.

- (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
  - (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
  - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
  - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
  - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
  - (viii) Work area fans shall not blow across the opening of the degreaser unit.
  - (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

- (24) GE 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 29 DAY OF October, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Marie Allen Robert Corne for*  
PATRICIA W. AHO, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 7/28/14

Date of application acceptance: 8/4/14

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

