

**Greenville Steam Company
Piscataquis County
Greenville Junction, Maine
A-261-70-A-I**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License**

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	Greenville Steam Company (GSC)
LICENSE NUMBER	A-261-70-A-I
LICENSE TYPE	Initial Part 70 License
NAICS CODES	221119
NATURE OF BUSINESS	Electric Power Generation
FACILITY LOCATION	Spruce Street, Greenville Junction
DATE OF LICENSE ISSUANCE	August 7, 2003
LICENSE EXPIRATION DATE	August 7, 2008

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	271.3 MMBtu/hr	Fuel Burning
Generator #1	7.9 MMBtu/hr	Fuel Burning

GSC has additional insignificant activities which do not need to be listed in the emission equipment table above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of Chapter 140 of the Department's Regulations.

C. Application Classification

The application for GSC does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be an Initial Part 70 License issued under Chapter 140 of the Department's regulations for a Part 70 source.

II. EMISSION UNIT DESCRIPTION

A. Boiler #1

Boiler #1 was manufactured by Babcock & Wilcox with a maximum design heat input of 271.3 MMBtu/hr firing multiple fuels including biomass (wood waste, whole tree chips, and other wood byproducts), #2 fuel oil, specification waste oil, vehicle carpet waste, knots/screens, mixed laminate, and construction and demolition wood. Oil firing in Boiler #1 is limited. Without physically modifying the boiler (to accept additional oil guns), Boiler #1 is not capable of firing above 98.3 MMBtu/hr on oil.

In 2002, GSC amended their air emission license to allow the firing of alternative fuels (vehicle carpet waste, knots/screens, mixed laminate, and construction and demolition wood). To prevent this modification being classified as major, GSC accepted more restrictive annual emission limits for SO₂, NO_x, and CO.

Boiler #1 is equipped with a multicyclone followed by an ESP for control of particulate matter. Overfire air and good combustion practices are used for control of NO_x, CO and VOCs. Emissions exit through a 120-foot stack.

For the purposes of this license, shutdown includes periods when Boiler #1 is not in operation.

1. Cold Startup

During long-term shutdowns, Boiler #1 and auxiliary equipment, including the electrostatic precipitator (ESP), return to cold (ambient) temperatures. When the equipment is cold, the plant uses a three-phase startup procedure to resume full boiler operation. The total boiler operating time for a cold startup typically ranges from 9 to 16 hours before the ESP can be safely energized. Startup time is based on the duration of equipment testing and checkout. The testing and checkout is required in order to follow good engineering practices and prevent possible damage to plant equipment.

Once the ESP has been energized, the power plant begins to establish routine operations. Routine operations are met when the boiler operations become stable. This can take an additional 48 hours, depending on the time of year

and the quality of the fuel (fuel temperature, moisture content). PM emissions are controlled once the ESP is fully operational. NO_x and especially CO can vary substantially until the combustion process becomes stable.

38 M.R.S.A, Section 590, Subsection 5 allows for the Department to incorporate specific license conditions and allowances for periods of emissions which have been demonstrated to be unavoidable.

Opacity

GSC opacity limit is 20% opacity except for one six-minute period per hour of not more than 27% opacity. Opacity can fluctuate greatly during system testing, trial runs, and cold startups. This fluctuation is due to operating limitations of the ESP, moisture characteristics, and combustion exhaust dynamics.

In order to operate the ESP, the temperature of the exit flow gases must reach 200°F and the oxygen levels in the flue gas must be below combustion/explosion levels. Prior to this point, emissions are controlled by the multi-cyclone and char re-injection system. Once the ESP is engaged, the opacity returns to lower, more stable levels.

Under Chapter 101 of the Department's regulations, a maximum exceedance exemption of four hours is allowed during startup procedures. For GSC, this exemption period is adequate for routine 'hot' startups after short duration shutdowns. However, as GSC established in Air Emission License A-261-71-I-A, the four hour exemption period does not recognize good engineering and safety protocols and is insufficient to cover cold startups that must occur following long shutdown periods.

Therefore, GSC was granted an excess opacity exemption for periods up to 14 hours for cold startups.

CO

Combustion instability causes CO emissions to fluctuate widely during cold startup. In Air Emission License A-261-71-I-A, GSC established that a 48 hour exemption from the lb/MMBtu CO limit was appropriate for periods of cold startup. GSC shall continue to meet the lb/hr CO limit at all times.

Definition of Cold Startup

For purposes of this license, cold startup is defined as when the initial temperature of Boiler #1, measured at the probe box on the steam drum, is less than or equal to 100 °F.

2. New Source Performace Standards (NSPS)

NSPS 40 CFR Part 60, Subpart D does not apply since Boiler #1 has a maximum heat input firing fossil fuel of less than 250 MMBtu/hr.

Boiler #1 is not subject to NSPS Subpart Da as it is not an “electrical utility steam generating unit.”

NSPS Subpart Db was originally proposed via the June 19, 1984 Federal Register for PM and NO_x. The June 19, 1986 Federal Register contained a modification to the proposal that included SO₂ requirements. When the final rule was promulgated the PM and NO_x standards applied to all sources for which construction began after June 19, 1984. However, the SO₂ standards apply only to those facilities for which construction began after June 19, 1986. Boiler #1 is therefore not subject to the NSPS Subpart Db SO₂ provisions since construction began before June 19, 1986. Specifically, excavation started on March 31, 1986, foundation work began on April 7, 1986, and erection of boiler support steel began on May 26, 1986.

Under Section 60.44b(c), NSPS Subpart Db establishes a NO_x standard for simultaneous combustion of oil and wood or other fuels. This section also exempts facilities that have an annual capacity factor for oil of 10 percent or less. The 10 percent capacity factor must be subject to a Federally enforceable limitation. This license includes a Federally enforceable limit that restricts GSC to an annual fuel use of 30,000 gallons per year or less of fuel oil. This equates to an annual capacity factor for oil of significantly less than 10 percent.

Section 60.43b(c) of NSPS Subpart Db establishes the particulate matter standards for facilities the combusts wood and oil. GSC has accepted emission limits more stringent than the NSPS as indicated in streamlining below.

GSC is subject to the opacity standards established in Section 60.43b of NSPS Subpart Db.

3. Streamlining

Opacity

GSC accepts streamlining for opacity requirements. Chapter 101, Section 2(A)(2) of the Department’s regulations and 40 CFR Part 60, Subpart Db requirements are applicable. The NSPS opacity limit is more stringent. Therefore, only the more stringent NSPS opacity limit is included in this license.

Particulate Matter

GSC accepts streamlining for particulate matter requirements. Chapter 103 of the Department's regulations, 40 CFR Part 60, Subpart Db, and Best Practical Treatment (BPT) requirements are applicable. The BPT particulate matter limit is more stringent. Therefore, only the more stringent BPT particulate matter limit is included in this license.

Sulfur Dioxide

GSC accepts streamlining for sulfur dioxide requirements. Chapter 106 of the Department's regulations and BPT requirements are applicable. The BPT limit is more stringent. Therefore, only the more stringent sulfur limit is included in this license.

4. Periodic Monitoring

Periodic monitoring for Boiler #1 shall consist of the following record keeping:

- a. The amount of each fuel fired on a monthly as well as a 12 month rolling total basis.
- b. Sulfur content of the fuel oil fired in Boiler #1.
- c. Sulfur content of any alternative fuel (vehicle carpet waste, knots/screens, mixed laminate waste, construction and demolition debris) fired on a semi annual basis.
- d. Percent by weight plastic in the construction and demolition debris fuel on a weekly basis.
- e. Number of ESP banks in operation at any time.

Periodic monitoring for Boiler #1 shall also consist of the following:

Item to be Monitored	Monitor	Record
ESP Applied Voltage	continuously	every 12 hours
ESP Applied Amperage	continuously	every 12 hours

Periodic monitoring also includes the instrument monitoring and record keeping requirements in Chapter 117 of the Department's Regulations.

GSC shall perform stack testing on Boiler #1 for particulate matter in accordance with 40 CFR Part 60, Appendix A, Method 5 every other year for which the boiler has operated more than 1,000 hours.

GSC shall stack test Boiler #1 for lead in accordance with 40 CFR Part 60, Appendix A, Method XX by June 1, 2004.

In the event that Boiler #1 is in the process of a cold startup, GSC shall monitor and record Steam Drum Temperature at a minimum of once per hour.

During cold startup, GSC shall also record the opacities which are greater than 20% on a six minute average, except for one 6 minute period per hour of not more than 27% opacity. The record keeping associated with cold startup shall be considered part of GSC's periodic monitoring program.

Based on best management practices and the type of fuel for which the boiler was designed, it is unlikely that Boiler #1 will exceed the emission limits for VOC. Therefore, periodic monitoring by the source for VOC is not required. However, neither the EPA nor the State is precluded from requesting the facility to perform testing and may take enforcement action for any violations discovered.

5. Continuous Emission / Opacity Monitors (CEMS / COMS)

Continuous Emission/Opacity Monitoring for Boiler #1 shall consist of the following:

CEM	Monitor	Record
NO _x	continuously	continuously
CO	continuously	continuously
Opacity	continuously	continuously

B. Diesel Generator

Generator #1 has a design capacity of 7.9 MMBtu/hr. In order to be exempt from NO_x RACT requirements, GSC accepted a license restriction of 500 hr/yr for Generator #1 to maintain NO_x emissions below 10 tons per year.

1. Streamlining

Opacity

GSC accepts streamlining for opacity requirements. Chapter 101, Section 2(A)(1) of the Department's regulations and Best Practical Treatment (BPT) requirements are applicable. The Best Practical Treatment (BPT) opacity limit is more stringent. Therefore, only the more stringent BPT opacity limit is included in this license.

Sulfur Dioxide

GSC accepts streamlining for sulfur dioxide requirements. Chapter 106 and BPT limits are applicable. The BPT sulfur dioxide limit is more stringent. Therefore, only BPT requirements are included in this license.

2. Periodic Monitoring

Periodic monitoring for Generator #1 shall consist of record keeping which includes hours of operation and fuel delivery receipts showing % sulfur.

Based on best management practices and the type of fuel for which the generator was designed, it is unlikely that Generator #1 will exceed the opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing is not required. However, neither the EPA nor the State is precluded from performing its own testing and may take enforcement action for any violations discovered.

C. Facility Emissions

Total Allowable Annual Emissions for the Facility
(used to calculate the license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Lead
Boiler #1	35.7	35.7	45.4	218.6	949.1	65.4	0.6
Generator #1	0.2	0.2	0.1	6.3	1.7	0.2	-
Total TPY	35.9	35.9	45.5	224.9	950.8	65.6	0.6

III. AIR QUALITY ANALYSIS

GSC previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this Initial Part 70 License.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-261-70-A-I pursuant to MEDEP Chapter 140 and the preconstruction permitting requirements of MEDEP Chapter 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to GSC pursuant to the Department's preconstruction permitting requirements in Chapters 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in Chapter 115 for making such changes and pursuant to the applicable requirements in Chapter 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

STANDARD STATEMENTS

- (1) 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;
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.

- (4) 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;
- (5) Notwithstanding any other provision 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.
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - (a) Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - (b) The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated November 2, 1998.

	SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
A	Boiler #1	40 CFR Part 60, Subpart D	NSPS for Steam Generating Units	Maximum heat input firing fossil fuel of less than 250 MMBtu/hr
B	Boiler #1	40 CFR Part 60, Subpart Da	NSPS for Electric Utility Steam Generating Units	GSC is not an Electric Utility
C	Boiler #1	40 CFR Part 60, Subpart Dc	NSPS for Small Steam Generating Units	Boiler #1 has a heat input greater than 100 MMBtu/hr

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- (a) Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to Chapter 140;
 - (b) Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
 - (c) The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
 - (d) The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license.

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 and this license (Title 38 MRSA §347-C);
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140;
- (3) 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; **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; **Enforceable by State-only**
- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license;
- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, 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 the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license.

- (8) 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 under circumstances representative of the facility's normal process and operating conditions:
 - (i) 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;
 - (ii) to demonstrate compliance with the applicable emission standards; or
 - (iii) 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.

Enforceable by State-only

- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates 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.

Enforceable by State-only

- (10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.
- a. The licensee shall notify the Commissioner within 48 hours of a violation in emission standards and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
- b. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 MRSA § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- c. All other deviations shall be reported to the Department in the facility's semiannual report.
- (11) Upon the written request of 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 manner as the Department shall

- prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- (a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - (b) The compliance status;
 - (c) Whether compliance was continuous or intermittent;
 - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (e) Such other facts as the Department may require to determine the compliance status of the source;

SPECIAL CONDITIONS

- (14) Boiler #1
- A. GSC is licensed to operate Boiler #1 which is licensed to fire biomass (wood waste, whole tree chips, and other wood byproducts), #2 fuel oil, specification waste oil, vehicle carpet waste, knots/screens, mixed laminate, and construction and demolition wood. [MEDEP Chapter 140, BPT]
 - B. GSC shall not exceed a heat input to Boiler #1 of 98.3 MMBtu/hr from fuel oil. [MEDEP Chapter 140, BPT]
 - C. GSC shall not fire greater than 30,000 gallons per year (12 month rolling total) of fuel oil. [MEDEP Chapter 140, BPT]
 - D. The sulfur content of the fuel oil fired shall not exceed 0.7% by weight demonstrated by purchase records from the supplier or by other methods approved by the Department. [MEDEP Chapter 140, BPT]

E. Emissions from Boiler #1 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.03	MEDEP Chapter 140, BPT	Federally Enforceable
NO _x 30 day rolling	0.30	MEDEP Chapter 140, BPT	Federally Enforceable
NO _x 24 hour block	0.35	MEDEP Chapter 140, BPT	Federally Enforceable
CO June 1 – Nov. 30	0.65	MEDEP Chapter 140, BPT	Federally Enforceable
CO Dec. 1 – May 31	0.95	MEDEP Chapter 140, BPT	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	8.1	MEDEP Chapter 140, BPT	Federally Enforceable
PM ₁₀	8.1	MEDEP Chapter 140, BPT	Federally Enforceable
SO ₂	71.2	MEDEP Chapter 140, BPT	Federally Enforceable
NO _x	81.4	MEDEP Chapter 140, BPT	Federally Enforceable
CO June 1 – Nov. 30	176.0	MEDEP Chapter 140, BPT	Federally Enforceable
CO Dec. 1 – May 31	257.0	MEDEP Chapter 140, BPT	Federally enforceable
VOC	23.6	MEDEP Chapter 140, BPT	Federally Enforceable

Pollutant	Ton/Year	Origin and Authority	Enforceability
SO ₂	45.4	MEDEP Chapter 140, BPT	Federally Enforceable
NO _x	218.6	MEDEP Chapter 140, BPT	Federally Enforceable
CO	949.1	MEDEP Chapter 140, BPT	Federally Enforceable
Lead	0.6	MEDEP Chapter 140, BPT	Federally Enforceable

- F. Compliance with the NO_x lb/MMBtu emission limits shall be demonstrated by means of a CEMS. Compliance with the 0.35 lb/MMBtu emission limit shall be on a 24 hour block average basis and compliance with the 0.30 lb/MMBtu emission limit shall be on a 30 day rolling average basis. Periods of startup, shutdown, and equipment malfunction shall not be included in determining 24 hour daily block and 30 day rolling arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions. A 24-hour block average basis shall be defined as midnight to midnight. [MEDEP Chapter 140, BPT]
- G. Compliance with the NO_x lb/hr emission limit shall be demonstrated by stack testing upon request by the Department. [MEDEP Chapter 140, BPT]
- H. Compliance with the CO lb/MMBtu emission limits shall be on a 30-day rolling average basis, demonstrated by means of a CEMS. [MEDEP Chapter 140, BPT]
- I. Compliance with the CO lb/hr emission limit shall be demonstrated by stack testing upon request by the Department. [MEDEP Chapter 140, BPT]
- J. For periods following a seasonal change in emission limits (i.e. June and December), GSC shall use the most recent previous 30 days for which the same limit applied. Days in which Boiler #1 did not operate shall not be included in the 30-day rolling average. (for example: The 30-day average for June 5th would include June 1st through June 5th as well as the last 25 days of November providing there were no shutdown days during this time.) [MEDEP Chapter 140, BPT]
- K. The CO lb/hr limits shall apply at all times. [MEDEP Chapter 140, BPT]
- L. The CO lb/MMBtu limits shall apply at all times, except periods of shutdown, equipment malfunction, and the 48 hours immediately following a cold startup as defined in Section II(A)(1) of this license. These periods shall not be included in determining the arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions. [MEDEP Chapter 140, BPT]
- M. Compliance with the NO_x and CO ton per year limits shall be on a 12-month rolling total basis and demonstrated by record keeping of boiler fuel use and CEM data. [MEDEP Chapter 140, BPT]
- N. Particulate matter limits shall be demonstrated by stack testing done every other year if operated more than 1,000 hours per calendar year. Only years in

which the boiler is operated more than 1,000 hours shall be included in determining the necessary testing frequency under this paragraph. Tests shall be completed by December 31st of the years requiring testing. The tests shall be performed varying the fuel fired, representative of the operations of the boiler. The stack test shall comply with all of the requirements of the Department's Compliance Test Protocol and with 40 CFR Part 60, as appropriate, or other methods approved by the Department. [MEDEP Chapter 140, BPT]

- O. Compliance with the Lead ton/year emission limit shall be demonstrated by stack testing prior to June 1, 2004 and record keeping including the amount of Construction and Demolition Debris fuel fired. Stack testing shall take place under representative Construction and Demolition Debris fuel firing. Additional stack testing for lead shall be performed upon request by the Department. [MEDEP Chapter 140, BPT]
- P. GSC shall sample the sulfur content of any alternative fuel (vehicle carpet waste, knots/screens, mixed laminate waste, construction and demolition debris, etc) fired in Boiler #1 on a semiannual basis to be used to demonstrate compliance with the SO₂ lb/hr and ton/year emission limits. The test results and the calculations used to determine compliance shall be included in the quarterly report submitted for the quarter in which the tests were performed. MEDEP may suspend this requirement via letter if it finds that the sulfur contents are found to be consistently insignificant. [MEDEP Chapter 140, BPT]
- Q. VOC lb/hr limits shall be demonstrated by stack testing upon request by the Department in accordance with 40 CFR, Part 60, Appendix A. [MEDEP Chapter 140, BPT]
- R. GSC shall continue to operate and maintain a multicyclone and an electrostatic precipitator (ESP) on Boiler #1 for the control of particulate matter. GSC shall operate, at a minimum, the number of banks which successfully demonstrated compliance during the most recent PM stack test. [MEDEP Chapter 140, BPT]
- S. GSC shall maintain and operate a continuous opacity monitor (COM) on Boiler #1 in accordance with Chapter 117. The COM shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendix B. [MEDEP Chapter 140, BPT]
- T. GSC shall maintain and operate a continuous emission monitor (CEM) on Boiler #1 for NO_x in accordance with Chapter 117 and 40 CFR Part 60, Appendices B and F. [MEDEP Chapter 140, BPT]

- U. GSC shall maintain and operate a continuous emission monitor (CEM) on Boiler #1 for CO in accordance with Chapter 117 and 40 CFR Part 60, Appendices B and F. [MEDEP Chapter 140, BPT]
- V. GSC shall operate the monitor and record the following as specified for Boiler #1:

Item to be Monitored	Monitor	Record
ESP Applied Voltage	continuously	every 12 hours
ESP Applied Amperage	continuously	every 12 hours

- W. The opacity from Boiler #1 shall not exceed 20% on a six-minute block average, except for one (1) six-minute period per hour of not more than 27% opacity. This opacity standard shall apply at all times except during periods of cold startup. For the purpose of this license, a cold startup of Boiler #1 shall be any startup of Boiler #1 which meets the criteria listed in Section II(A)(1) of this license. [MEDEP Chapter 140, BPT]
- (15) Boiler #1 is subject to and shall comply with 40 CFR Part 60, Subpart A and Subpart Db for particulate matter and opacity. These requirements include, but are not limited to, the following record keeping and reporting requirements:
- A. GSC shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for distillate oil and wood for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
 - B. GSC shall submit excess opacity emissions and monitoring systems performance reports to MEDEP and EPA semiannually. All reports shall be postmarked by the 30th day following the end of each six-month period.
 - C. The following address for EPA shall be used for any reports or notification required to be copied to them:

Compliance Clerk
USEPA Region 1
1 Congress Street
Suite 1100
Boston, MA 02114-2023

[40 CFR Part 60, Subparts A and Db]

(16) Cold Startup

A. The period of opacity allowance for a cold startup of Boiler #1 shall be implemented in the following manner:

1. Startup shall begin once fire has been put into Boiler #1
2. Cold startup shall not exceed a maximum period of 14 hours, not to include periods of time which are determined by the Department to be unavoidable malfunctions pursuant to 38 M.R.S.A., Section 349, Subsection 9.
3. Upon initiating the fire in Boiler #1, the 14-hour period shall begin, and shall continue regardless if the fire is removed from the boiler. If during the 14-hour period, GSC experiences periods of time (fire in the boiler or not) which are determined by the Department to be unavoidable malfunctions pursuant to 38 M.R.S.A., Section 349, Subsection 9, those periods of time shall not be counted as part of the 14-hour period.
4. GSC shall maintain records of opacities which are greater than 20% on a six minute average, except for one 6 minute period per hour of not more than 27% opacity, and report each of these periods in the quarterly report. These periods shall not be reported in the excess emissions section of the quarterly report.

[MEDEP Chapter 140, BPT]

B. GSC shall develop, implement and maintain a written startup procedure that describes procedures for operating and maintaining the source during such periods. A copy of, and any subsequent changes to, the startup procedure shall be submitted to the Department.

(17) Construction and Demolition Debris

A. GSC shall limit the annual fuel usage and quarterly feed rate of construction and demolition debris into Boiler #1 to no more than 50% by weight of the annual fuel use. For the purpose of this license, construction and demolition debris shall be chipped wood demolition debris from which painted and chemically treated wood and wood mixed with roofing and other non-wood related demolition products have been removed such that the amount remaining is determined to be insignificant. [MEDEP Chapter 140, BPT]

B. When firing construction and demolition debris fuel, GSC shall take samples of the fuel on a weekly basis to determine the percent by weight plastic in the fuel. No more than 0.75% by weight of the construction and demolition debris fuel fired may be plastic, based on a quarterly average. The weekly and quarterly percent information shall be included in the quarterly report, if

construction and demolition debris is fired in that quarter.
[MEDEP Chapter 140, BPT]

(18) Waste Oil

GSC may substitute waste oil for any fuel oil providing all of the following conditions are met:

- A. the waste oil is not considered hazardous waste and meets the standards for specification waste oil;
- B. an analysis of a representative sample of the waste oil is on file at the source and at the MEDEP. (If there are changes at the facility that may effect the composition of the waste oil collected, a new representative sample shall be tested.);
- C. the sulfur content of the waste oil (as shown on the virgin oil MSDS) does not exceed the licensed allowed sulfur content;
- D. the maximum amount of waste oil fired is 2000 gallons per year on a 12 month rolling total basis; and
- E. monthly and 12 month rolling totals are kept of the quantity and type of waste oil fired.

(19) Material Handling

- A. GSC shall notify the regional MEDEP Air Quality Inspector and the MEDEP Air Quality Licensing Section of any bulk fuel pile fires that exceed a duration of fifteen minutes by the next business day. [MEDEP Chapter 140, BPT]
Enforceable by State-only
- B. Potential sources of fugitive PM emissions including, but not limited to, material stockpiles and roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, on a 3 minute block average basis. [MEDEP Chapter 140, BPT]
- C. The ash dumping system shall be enclosed or equipped with control equipment sufficient to preclude visible emissions. [MEDEP Chapter 140, BPT]
- D. All ash from Boiler #1 and the particulate collection equipment shall be conditioned with water and placed in metal storage/shipping containers for transportation to an ash disposal or utilization site. All ash handling shall be accomplished within the ash handling building or in the closed metal containers. The ash shipping containers shall be closed prior to removal from the ash handling building. [MEDEP Chapter 140, BPT]

(20) Generator #1

- A. GSC is licensed to operate Generator #1 which is licensed to fire diesel fuel. [MEDEP Chapter 140, BPT]
- B. The sulfur content of the diesel fuel fired shall not exceed 0.05% by weight demonstrated by purchase records from the supplier. [MEDEP Chapter 140, BPT]
- C. Emissions from the Generator #1 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.95	MEDEP Chapter 140, BPT	Federally Enforceable
PM ₁₀	0.95	MEDEP Chapter 140, BPT	Federally Enforceable
SO ₂	0.40	MEDEP Chapter 140, BPT	Federally Enforceable
NO _x	25.28	MEDEP Chapter 140, BPT	Federally Enforceable
CO	6.72	MEDEP Chapter 140, BPT	Federally Enforceable
VOC	0.71	MEDEP Chapter 140, BPT	Federally Enforceable

- D. GSC shall operate Generator #1 such that the visible emissions from the stack do not exceed 30% opacity on a six-minute block average basis, except for no more than two (2) six-minute block averages in a 3-hour block. [MEDEP Chapter 140, BPT]
- E. GSC shall maintain records of diesel fuel used indicating the percent (%) sulfur content of the fuel by weight demonstrated by purchase records from the supplier. [MEDEP Chapter 140, BPT]
- F. GSC shall not exceed an annual usage of Generator #1 of 500 hr/year (12-month rolling total). Generator #1 shall be equipped with an hour meter and a written log shall be maintained of all the operating hours to demonstrate compliance with the 500 hr/year operational limit. [MEDEP Chapter 140, BPT] **Enforceable by State-only**

(21) **Monitoring and Recordkeeping Requirements**
[MEDEP Chapters 140, 117, and 122]

A. The following are identified as Periodic Monitors:

1. The amount of each fuel fired in Boiler #1 on a monthly as well as a 12 month rolling total basis.
2. Sulfur content of the fuel oil fired in Boiler #1.
3. Sulfur content of any alternative fuel (vehicle carpet waste, knots/screens, mixed laminate waste, construction and demolition debris) fired on a semi annual basis.
4. Percent by weight plastic in the construction and demolition debris fuel on a weekly basis.
5. ESP voltage and amperage as applied.
6. Number of ESP banks in operation at any time.
7. Hours of operation for Generator #1.
8. Sulfur content of the fuel oil fired in Generator #1.

B. For all CEMS and COMS record keeping shall include:

1. Documentation that all CEMS and COMS are continuously accurate, reliable and operated in accordance with Chapter 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;
2. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P;
3. A report of other data indicative of compliance with the applicable emission standard for those periods when the CEMS or COMS were not in operation or produced invalid data. In the event the Department does not concur with the licensee's compliance determination, the licensee shall, upon the Departments request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.

(22) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Bureau of Air Quality and EPA within 30 days after the end of each calendar quarter, detailing the following: [MEDEP Chapter 117 and 140]

1. All control equipment downtimes and malfunctions;
2. All CEMS or COMS downtimes and malfunctions;
3. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
 - a. Standard exceeded;
 - b. Date, time, and duration of excess event;
 - c. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent strip charts and printouts when requested;
 - d. A description of what caused the excess event;
 - e. The strategy employed to minimize the excess event; and
 - f. The strategy employed to prevent reoccurrence.
4. A report certifying there were no excess emissions, if that is the case.
5. Each period during cold startup which exceeded 20% opacity on a six minute average except for one 6 minute average not to exceed 27% opacity.
6. The test results and calculations used to determine compliance with the SO₂ limit for Boiler #1.
7. The weekly and quarterly percent by weight of plastics in the construction and demolition debris fuel for any quarter in which such fuel is fired.
8. Total hours of operation of Boiler #1 for the quarter.

(23) **Semiannual Reporting**

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality and EPA. The semiannual reports are due with every other quarterly report, and the initial semiannual report is due January 30, 2004.

- A. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

[MEDEP Chapter 140]

(24) **Annual Compliance Certification**

The licensee shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The initial annual compliance certification is due January 30, 2004. [MEDEP Chapter 140]

(25) **Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

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

Reports and questions should be directed to:

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

Phone: (207) 287-2437

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

(26) The licensee is subject to the State regulations listed below.

<u>Origin and Authority</u>	<u>Requirement Summary</u>	<u>Enforceability</u>
Chapter 102	Open Burning	-
Chapter 109	Emergency Episode Regulation	-
Chapter 110	Ambient Air Quality Standard	-
Chapter 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. Section 3 §585-B, sub-§5	Reduce Mercury Use and Emissions	Enforceable by State-only

(27) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. An example of such units include refrigerators and any size air conditioner that contain CFCs. [40 CFR, Part 82, Subpart F]

