



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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**ReEnergy Stratton LLC  
Franklin County  
Stratton, Maine  
A-368-70-L-R**

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

**FINDINGS OF FACT**

After review of the Part 70 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 (the Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

FACILITY	ReEnergy Stratton LLC
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	221117 Biomass Electric Power Generation
NATURE OF BUSINESS	Electricity Generation Facility
FACILITY LOCATION	27 Fox Farm Road, Stratton, Maine

ReEnergy Stratton LLC (RST) is a wood-fired electrical generation facility consisting of one biomass-fired boiler, two emergency generators, a fire pump engine, and ancillary equipment.

In February 2012, this facility, then licensed as Boralex Stratton Energy LP, converted from a limited partnership (LP) to a limited liability corporation (LLC) and in the process changed their name to ReEnergy Stratton LLC. Since this was a name change and not a change in ownership, no license transfer was required.

RST has the potential to emit more than 100 tons per year (TPY) of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) and more than 50 TPY of volatile organic compounds (VOC); therefore, the source is a major source for these criteria pollutants. RST does not have the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or more than 25 TPY of combined HAP; therefore, the source is an area source for HAP.

**B. Emission Equipment**

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

**Boiler**

<u>Equipment</u>	<u>Max. Heat Input Capacity (MMBtu/hr)</u>		<u>Maximum Firing Rate</u>	<u>Dates of...</u>	<u>Stack #</u>
Boiler #1	672.0	Biomass	74.7 ton/hr	Manufacture: 1988	01
	140.0	Distillate fuel	1,000 gal/hr	Installation: 1989	

**Generators and Engines**

<u>Equipment</u>	<u>Max. Input Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate (gal/hr)</u>	<u>Output</u>	<u>Fuel Type, % sulfur</u>	<u>Mfr. Date</u>	<u>Install. Date</u>	<u>Stack #</u>
Diesel Unit 1 (Generator)	3.33	23.8	341.3kW (475 hp)	Distillate fuel, 0.0015% by weight	2/1992	1993	002
Diesel Unit 2 (Fire Pump)	1.37	9.8	196 hp (140 kW)		6/1988	1989	003
Propane Unit 1 (Generator)	0.78	8.5	80 kW (112 hp)	Propane	1988		

RST has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

**C. Application Classification**

The application for RST does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be a Part 70 License renewal issued under 06-096 Code of Maine Rules (CMR) 140 (as amended).

**D. Facility Description**

RST operates a wood/biomass-fired electric generating facility. Boiler #1 fires sawmill residues, whole tree chips, and other wood fuels; fuel oil is used during startups and shutdowns, for flame stabilization, and for emergency situations. The wood-fired boiler supplies steam to a turbine, which generates 39-50 megawatts (gross) of electricity. The facility is controlled by a system of local instrumentation and a central programmable controller, which is configured to allow plant operation down to 50% of the maximum net electrical output.

Biomass fuels consisting of wood chips, sawmill wastes, and other wood wastes are trucked to the facility daily. Each truck is weighed, and then unloaded via one of two back-in tilt dumpers. The fuel is conveyed to a disc screen for size classifying and then made smaller using an in-line wood hog, if required. The sized fuel is then conveyed to a high-density polyethylene (HDPE)-lined fuel storage yard and supplied to the boiler as needed.

The generating plant consists of one travelling-grate membrane water-wall boiler capable of producing 500,000 pounds of steam per hour, one condensing steam turbine generator, one condenser, two feedwater heaters, one cooling tower, one electrostatic precipitator (ESP), an electrical distribution system, and instrumentation and control systems.

Superheated steam from the boiler is routed to the steam turbine generator, which is supplied with two uncontrolled extractions to supply steam for de-aeration and condensate heating. Exhaust steam from the turbine is condensed in the surface condenser, and the resulting condensate is pressurized, heated, deaerated, and routed back to the boiler for reuse. The circulating water leaving the condenser is cooled in a two-cell cooling tower before being pumped back for reuse in the condenser.

Hot flue gas from the steam generator is used in a tube preheater to heat combustion air prior to its introduction into the furnace. Pre-heated combustion air is divided into under-grate air, which is evenly distributed through the active grate area to begin the combustion process, and overfire air jets which provide mixing of fuel and air to complete the combustion process. After leaving the preheater, the exhausting flue gas is stripped of particulate matter in a mechanical dust collector followed by a four-cell ESP. The resulting cleaned flue gas is then discharged to the atmosphere through the stack.

#### **E. General Facility Requirements**

RST is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units described further in this license.

<b>CITATION</b>	<b>REQUIREMENT TITLE</b>
06-096 CMR 101	Visible Emissions Regulation
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel Regulation
06-096 CMR 109	Emergency Episode Regulations
06-096 CMR 110	Ambient Air Quality Standards
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 117	Source Surveillance – Emissions Monitoring
06-096 CMR 130	Solvent Cleaners

<b>CITATION</b>	<b>REQUIREMENT TITLE</b>
06-096 CMR 137	Emission Statements
06-096 CMR 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 CMR 140	Part 70 Air Emission License Regulations
06-096 CMR 143	New Source Performance Standards
06-096 CMR 144	National Emission Standards for Hazardous Air Pollutants
40 CFR Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 63, Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
40 CFR Part 64	Compliance Assurance Monitoring
40 CFR Part 70	State Operating Permit Programs

Note: CMR = Code of Maine Regulations  
 CFR = Code of Federal Regulations

**F. Units of Measurement**

The following units of measurement are used in this license:

gal/hr	gallons per hour
hp	horse power
kW	kilowatt
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
MMBtu/hr	million British Thermal Units per hour
MW	megawatt
ppm	parts per million
ppmvd	parts per million by volume (dry basis)
psig	pounds per square inch (guage)
tons/day	tons per day
tons/hour	tons per hour
tpy or tons/year	tons per year

**II. POTENTIALLY APPLICABLE REGULATIONS**

**A. NO<sub>x</sub> RACT (Reasonably Available Control Technology)**

*Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides*, 06-096 CMR 138 (as amended) is applicable to sources that have the potential to emit quantities of NO<sub>x</sub> equal to or greater than 100 tons/year. Boiler #1 is subject to NO<sub>x</sub> emission standards and NO<sub>x</sub> continuous emissions

monitoring system (CEMS) requirements contained in 06-096 CMR 138. The NO<sub>x</sub> RACT requirements are incorporated in this renewal.

#### **B. VOC RACT (Reasonably Available Control Technology)**

*Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds*, 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. RST is exempt from VOC RACT requirements because the facility does not have the potential to emit more than 40 tons/year of VOC from non-exempt VOC-emitting equipment and processes [06-096 CMR 134 (1)(C)(4)]. Boiler #1 and the generators and fire pump are exempt from VOC RACT requirements because VOC emissions from these units are due to incomplete combustion.

#### **C. Mandatory Greenhouse Gas (GHG) Reporting**

Federal regulation 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of the following three categories, per 40 CFR Part 98, Subpart A, *General Provision*, § 98.2, *Who must report?*

- (a)(1) A facility that contains any source category that is listed in Table A-3 of this subpart in any calendar year starting in 2010.
- (a)(2) A facility that contains any source category that is listed in Table A-4 of this subpart and that emits 25,000 metric tons CO<sub>2</sub>e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A-3 and Table A-4 of this subpart.
- (a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.
  - (i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.
  - (ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.
  - (iii) The facility emits 25,000 metric tons CO<sub>2</sub>e or more per year in combined emissions from all stationary fuel combustion sources.

If RST fires 2,430,556\* gallons or more of distillate fuel and waste oil in a calendar year (12-month rolling total), the facility will meet all three conditions listed in paragraph (a)(3) above, and will be subject to the recordkeeping and reporting requirements of 40 CFR Part 98.

\* Based on a CO<sub>2</sub>e of 22,680 lb/1,000 gallons distillate oil and waste oil. This total includes Boiler #1, Diesel Unit 1, Diesel Unit 2, and Propane Unit 1.

**D. Compliance Assurance Monitoring (CAM)**

40 CFR Part 64, *Compliance Assurance Monitoring*, is applicable to units at major stationary sources if the unit has emission limits for certain pollutants, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for the controlled pollutant.

For emissions from Boiler #1, the following pollutants trigger CAM applicability:

<u>Pollutant</u>	<u>Control Method</u>
PM	multiple centrifugal cyclone separator followed by an ESP
NO <sub>x</sub>	Ecotube System and a regenerative selective catalytic reduction (R-SCR) system

However, 40 CFR Part 64, §64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. Furthermore, 40 CFR §64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. [40 CFR Part 64 §64.2(b)]

The following table lists the specific pollutants for this unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

**40 CFR Part 64 Applicability Table**

<u>Units</u>	<u>Pollutant</u>	<u>CAM?</u>	<u>Reason CAM Is or Is Not Applicable</u>	<u>Regulatory Authority</u>
Boiler #1	PM	Yes*	Not subject to NSPS emissions limits proposed after November 15, 1990; meets other applicability criteria	40 CFR §64.2(a)
	NO <sub>x</sub>	No	Operating a NO <sub>x</sub> CEMS	40 CFR §64.2(b)(1)(vi)

\* If future combustion of CDW fuel causes this unit to be subject to NESHAP requirements of 40 CFR Part 63, Subpart DDDDD, applicable PM standards of Subpart DDDDD will then apply to this unit such that CAM requirements would no longer be applicable. See Section III, Subpart A (5) of these Findings of Fact for further discussion of possible Subpart DDDDD applicability.

Therefore, PM emissions from Boiler #1 are subject to CAM requirements. The CAM requirements are incorporated in this renewal.

### **E. Stack Testing for Particulate Matter**

The previous license required the stack testing of Boiler #1 for particulate matter once every two years. Since the issuance of the initial Part 70 air emission license, the statutory requirement of 38 M.R.S.A. §589, Sub-section 2 has been revised as follows:

A person is not required to conduct stack tests for particulate matter on a source monitored by a continuous monitoring device for opacity as specified by 40 Code of Federal Regulations, Part 60, Appendix B, specification 1 or appropriate surrogate parameters as required by the commissioner more frequently than once every 5 years unless visible emissions, operating parameters, or other information indicates the source may be operating out of compliance with any applicable emission standard or unless there are more stringent federal requirements. If visible emissions, operating parameters, or other information indicates potential noncompliance with an air emission standard or if there are more stringent federal requirements, the Department may require additional stack tests.

Since Boiler #1 is required to continuously monitor for opacity, the revised timeframe for PM stack testing is incorporated into this renewal for Boiler #1.

### **III. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS**

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 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

#### **A. Boiler #1**

##### **1. Description**

Boiler #1 is a Combustion Engineering model VU-40 boiler manufactured in 1988 and installed in 1989. The boiler consists of a spreader-stoker traveling grate system with supplemental oil combustion capabilities. The boiler has a heat input capacity of 672.0 MMBtu/hour firing biomass and is equipped with a 140.0 MMBtu/hour distillate fuel oil burner. Fuel oil is used for startups, shutdowns, flame stabilization, and emergency situations. A Mitsubishi steam

turbine coupled to a Brush generator uses produced steam to generate electrical power.

Fuel is reclaimed from the fuel storage yard and conveyed to the boiler's surge bin. The fuel is then fed through the spreader-stoker system into the furnace portion of the boiler via six variable speed screw feeders and distributed on the traveling grate via high pressure transport air and trajectory plates. Heavier fuel is spread evenly on the grate surface where it is combusted, while lighter fuel is burned in suspension. Boiler #1 is equipped with an oxygen trim system which maintains an optimum air-to-fuel ratio. In addition to the under-grate and overfire air system, an Ecotube system (advanced overfire air system) is also installed and can be operated if additional overfire air is required.

Boiler #1 is designed and licensed to fire biomass fuel which includes conventional wood fuel and processed construction and demolition wood (CDW). Up to 50% by weight of the fuel fired on an annual basis and up to 65% by weight of the fuel fired on a daily basis may be CDW. Processed pallet material is considered part of the whole tree chip mix and is not considered part of the CDW wood mix. All processed CDW fuel must meet the fuel specification requirements of 06-096 CMR 418, *Maine Solid Waste Management Rules – Beneficial Use of Solid Wastes*. At the present time, no CDW fuel is combusted in Boiler #1. If RST intends to resume combustion of CDW fuel, the facility shall comply with the specific requirements described in Section III, Subpart A (5) of these Findings of Fact.

Boiler operation is optimized and air emissions minimized by a distributed control system (DCS) automatic combustion control system, over-fire air and under-grate air control, O<sub>2</sub> feedback, char reinjection, an air heater, a multi-cyclone, an ESP, and an R-SCR system. Emissions are continuously monitored for NO<sub>x</sub>, CO, O<sub>2</sub>, and opacity. Emissions exit through Stack 01, which has an above ground level (AGL) height of 290 feet.

RST is licensed to combust waste fiber fuel in Boiler #1. RST shall limit the annual waste fiber fuel usage in Boiler #1 to 138,583 tons per year of waste fiber (as fired), based on purchase records quantifying the type and quantity of fiber. Compliance is based on a 12-month rolling total. [A-368-70-A-I (10/24/2000), BPT]

RST also incorporates the clarifier waste cake from the filter press into the fuel pile. RST shall limit the quantity of clarifier waste cake burned in Boiler #1 to 100 tons per year (as fired). Compliance is based on recording the quantity of waste cake incorporated into the fuel pile on a 12-month rolling total. [A-368-70-A-I (10/24/2000), BPT]

2. Control Equipment

a. PM Control Methods

RST shall control particulate matter emissions from Boiler #1 by use of a multiple centrifugal cyclone separator (multiclone) followed by an ESP.

While burning CDW, with the exception of startup, shutdown, and malfunction, RST shall operate the four-cell ESP with all fields energized. If a malfunction should result in loss of an ESP field or chamber at any time while combusting greater than 10% CDW, RST must take immediate action to correct the failed field or chamber and return it to service within 72 hours unless provisions to combust only non-CDW fuels have been executed within this time.

While burning only non-CDW fuels, RST shall operate, at a minimum, the number of ESP fields in operation during the most recent stack test demonstrating compliance with licensed PM emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, RST may perform additional PM emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall RST be relieved of its obligation to meet its licensed emission limits.

RST shall maintain a log of all maintenance performed on each cyclone, as well as a log documenting the nature of all failures and corrective actions taken. [06-096 CMR 140, BPT]

b. NO<sub>x</sub> Control Methods

Creation of NO<sub>x</sub> in Boiler #1 is minimized in the combustion process using a microprocessor control system which controls total excess air (O<sub>2</sub>), boiler combustion zone temperatures, and upper zone over-fire air injection to minimize the formation of thermal/prompt NO<sub>x</sub>. These systems also minimize oxidation of nitrogen in the fuel.

Add-on NO<sub>x</sub> controls consist of an Ecotube System, manufactured by ECOMB SA from Sweden, and a regenerative selective catalytic reduction (R-SCR) system, designed by Babcock Power Environmental Inc., to reduce emissions of NO<sub>x</sub>. Operation of the R-SCR system and/or the Ecotube System using injected reagents will only be employed when the Renewable Energy Credit (REC) market justifies their operation.

The R-SCR system removes NO<sub>x</sub> from the flue gas using a catalytic reduction process with a 19% aqueous ammonia reagent added to the flue gas upstream of the catalyst. Because flue gases exiting the stack are typically 300°F to 350°F, possibly below the temperature required for optimal function of the catalyst, flue gases entering the R-SCR system may need to be heated to within the temperature range of optimum system

performance. Flue gases are heated using auxiliary burners, if needed, firing a maximum of 85 gallons per hour of distillate fuel, after the ESP and before the R-SCR system. At full load, the typical combined firing rate of the burners is approximately 60 gallons per hour. The aqueous ammonia is added upstream of the catalyst and well-mixed with the flue gas prior to the catalyst to ensure optimum NO<sub>x</sub> removal efficiency and minimize the concentration of unreacted ammonia in the outlet gas stream (ammonia slip).

The Ecotube System consists of four liquid cooled, automatically retractable tubes (Ecotubes). These tubes are inserted into the boiler through openings in the walls. Ambient air is added through the Ecotubes with high pressure and high speed using adjustable nozzles to improve the mixing of the combustion gases and the air. The result is a more efficient combustion process with overall reduced emissions. In addition, thermal efficiency is also increased, resulting in reduced fuel consumption. A 30% liquid urea reagent or 19% aqueous ammonia (NH<sub>3</sub>) reagent can also be introduced into the Ecotube System to increase NO<sub>x</sub> reduction.

RST installed the Ecotube system primarily for the purpose of optimizing emissions of NO<sub>x</sub>, allowing RST an opportunity to participate as a qualifying renewable energy provider in New England's renewable energy markets. While in use, RST shall maintain a system of inspection and maintenance (I&M) for the Ecotube system. At a minimum, the I&M program will include periodic inspection of the system to ensure its integrity and proper function. RST shall document compliance by means of an inspection and maintenance log (written or electronic) in which the facility shall record all inspection dates and findings as well as routine and non-routine maintenance required to ensure proper operation.

RST is not required to operate the Ecotube system provided Boiler #1 does not exceed the 0.24 lb/MMBtu NO<sub>x</sub> emission limit established in this license. Whenever the Ecotube system is in use, RST shall maintain records of urea or ammonia injection operations, including dates reagent injection is utilized and amounts of reagent used on a daily, monthly, and 12-month rolling total basis.

RST may also use the Ecotube System with urea or ammonia injection as a secondary NO<sub>x</sub> reduction tool if necessary, such as at times when the R-SCR system is down for maintenance or unanticipated repair.

### 3. Fuel Oil Firing Limitations

- a. The maximum heat input capacity from oil in Boiler #1 when firing distillate fuel for boiler start-up and flame stabilization shall not exceed

140.0 MMBtu/hour (1,000 gal/hour). The flow rate shall be recorded hourly by a DCS. [A-368-70-A-I (10/24/2000), BPT]

- b. Combined distillate fuel and waste oil use in Boiler #1 and the R-SCR shall not exceed 3,000 gallons per three-hour period, 24,000 gallons/day, or 4,204,800 gallons/year (12-month rolling total). This annual fuel use requirement ensures RST meets the <10% capacity factor for oil. Fuel flow monitors shall be operated and maintained to document compliance.
- c. RST may burn no more than 5,000 gallons per year of on-site generated waste oil in Boiler #1. Only waste oil meeting the criteria “specification” or “off-specification” waste oil (as defined in the Department’s *Waste Oil Management Rules*) shall be burned in Boiler #1.

A log shall be maintained recording the quantities of specification and off-specification waste oil burned in Boiler #1 and shall be made available to the Department upon request. [A-368-70-A-I (10/25/2000), BPT]

4. New Source Performance Standards (NSPS)

Boiler #1 is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Db, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. These standards apply to steam generating units with a heat input capacity of 100 MMBtu/hour or greater that are constructed after June 9, 1984. RST shall comply with applicable notification and recordkeeping requirements of 40 CFR §60.7.

Subpart Db requires maintenance of records of the amounts of fuels combusted each day and calculation of annual capacity factor individually for wood and oil for each reporting period. RST shall maintain monthly fuel use records and determine an annual capacity factor on a 12-month rolling average basis with the new annual capacity calculated at the end of each calendar month. [A-368-70-A-I (10/24/2000), BPT]

5. Commercial and Industrial Solid Waste Incineration (CISWI)

In accordance with 40 CFR Part 241, clean construction and demolition wood (CDW) are not secondary materials or solid wastes unless discarded. [40 CFR §241.2] As such, this fuel, if fired in Boiler #1, does not cause this boiler to be considered a CISWI unit.

Both CDW and waste oil (meeting the specifications in 40 CFR §279.11) are considered *traditional fuels* as defined in 40 CFR §241.2, because they are “managed as valuable fuel products rather than being managed as waste materials”. These fuels are not considered secondary materials or solid wastes unless discarded. [40 CFR §258.2, definition of *Traditional fuels*]

If regulations and applicable definitions change such that any of the fuels fired in Boiler #1 triggers CISWI applicability, RST shall submit a compliance plan addressing requirements of the federal CISWI regulation in accordance with the regulation changes and EPA guidance.

6. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

a. Applicability

Applicability of federal NESHAP subparts for industrial boilers depends on whether the facility is a major source of HAP emissions or an area source of HAP emissions. This determination was made using the following sources of information:

- In November 2009, RST conducted fuel testing and emissions testing for antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), phosphorous (P), selenium (Se), silver (Ag), thallium (Tl), formaldehyde, and hydrogen chloride (HCl). From testing results, total annual potential emissions of these HAPs were estimated.
- Emission factors for other HAPs were obtained from National Council for Air and Stream Improvement, Inc. (NCASI) Technical Bulletin 858 (*Compilation of 'Air Toxic' and Total Hydrocarbon Emissions Data for Sources at Kraft, Sulfite, and Non-Chemical Pulp Mills – An Update*), Tables 20A and 20B, published January 2003; and the ERG Memo dated October 2002 (*Development of Average Emission Factors and Baseline Emission Estimates for the Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP*).
- Results of emissions testing for benzene conducted in July 2008 at the ReEnergy Livermore Falls facility were used to estimate benzene emissions from the ReEnergy Stratton facility significantly below the 10 tpy HAP threshold.

The facility's previous Part 70 license stated that the facility emitted HCl annually in excess of 10 tpy. Based on emissions testing and a study conducted in July and November of 2006, RST has the potential to exceed the 10 tpy threshold for HCl when combusting CDW but not when combusting non-CDW biomass. The facility deferred accepting CDW in June 2013.

Based on the methodologies identified above and the current fuel input at the facility, RST estimated potential HAP emissions of less than 25 tpy for total HAP emissions and less than 10 tpy for any single HAP; therefore, RST has been classified as an area source of HAP.

Since RST is an area source of HAP, Boiler #1 is not subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* contained in 40 CFR Part 63, Subpart DDDDD (Boiler MACT).

If RST resumes combustion of CDW, the facility could potentially emit HCl above the level triggering major HAP source requirements. Therefore, prior to resuming CDW combustion, RST shall fulfill the following requirements:

- (1) Notify the Department of RST's intention to resume combustion of CDW.
- (2) Conduct emissions testing for HCl when firing CDW to determine whether or not HCl emissions are above the 10 tpy threshold such that the facility is a major source for HCl HAP emissions.
- (3) If testing results establish the applicability of Boiler MACT requirements, RST shall submit a compliance plan addressing requirements of 40 CFR Part 63, Subpart DDDDD within 90 days of resuming CDW combustion.
- (4) RST shall be in compliance with applicable criteria and deadlines of Subpart DDDDD within three years of the date the facility becomes subject to this subpart. [40 CFR §63.7495(c)(2)]

Therefore, Boiler #1 is subject to the applicable requirements of *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers* contained in 40 CFR Part 63, Subpart JJJJJ (Area Source Boiler Rule) at this time. This unit is considered an existing biomass boiler.

b. Subpart JJJJJ Requirements

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 rule promulgated by EPA; however, RST 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>.

(1) 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 §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 Boiler #1. [40 CFR §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. Because Boiler #1 is an existing biomass-fired boiler equipped with an O<sub>2</sub> trim system to maintain an optimum air-to-fuel ratio, a tune-up is required on the unit every five years. [40 CFR §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 both 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 §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 §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 72 months from the previous inspection of boilers with oxygen trim systems such as Boiler #1. [40 CFR §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 §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 72 months from the previous inspection. [40 CFR §63.11223(b)(3)]

- 4) Optimize total emissions of CO consistent with manufacturer's specifications. [40 CFR §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, both 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 §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 of the unit. [40 CFR §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 §63.11225(a)(4), 40 CFR §63.112(b)]

iii. Energy Assessment

Boiler #1 is subject to the energy assessment requirement as follows:

- (a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR §63.11196(a)(3)]
- (b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Subpart JJJJJ, Table 2, #4]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR §63.11225(a)(4) and 40 CFR §63.11214(c)]

(2) Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJ including the following [40 CFR §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. [40 CFR §63.1125(a)(4)(vi)]

7. Emission Limits and Streamlining

For Boiler #1, a listing of potentially applicable emission standards, the origin and authority of each standard, and the applicable emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the streamlined emission limit is based is presented in **bold type**.

<b>Pollutant</b>	<b>Applicable Emission Standards</b>	<b>Origin and Authority</b>	<b>Licensed Emission Limits For Each Unit</b>
PM	0.03 lb/MMBtu	<b>A-368-71-A-N (March 10, 1987), BACT</b>	0.03 lb/MMBtu
	0.06 lb/MMBtu	06-096 CMR 103, §2.B.(4)(c)	
	0.10 lb/MMBtu	40CFR §60.43b(c)(1)	
	20.2 lb/hr	<b>A-368-71-A-I (October 24, 2000), BPT</b>	20.2 lb/hr, 1-hour average
PM <sub>10</sub> *	0.03 lb/MMBtu	<b>A-368-71-A-N (March 10, 1987), BACT</b>	0.03 lb/MMBtu
	20.2 lb/hr	<b>A-368-71-A-I (October 24, 2000), BPT</b>	20.2 lb/hr, 1-hour average

<u>Pollutant</u>	<u>Applicable Emission Standards</u>	<u>Origin and Authority</u>	<u>Licensed Emission Limits For Each Unit</u>
SO <sub>2</sub>	Distillate fuel, ASTM D396 compliant (0.5% S by weight)	06-096 CMR 140, BPT	Distillate fuel, ASTM D396 compliant (0.5% S by weight)
	0.005% S (50 ppm) distillate fuel beginning July 1, 2016 or the date specified in the statute	38 MRS A §603-A(2)(A)(3)	0.005% S by weight (50 ppm) distillate fuel beginning July 1, 2016 or the date specified in the statute
	0.0015% S (15 ppm) distillate fuel beginning Jan. 1, 2018 or the date specified in the statute	38 MRS A §603-A(2)(A)(3)	0.0015% S by weight (15 ppm) limit, Distillate fuel beginning Jan. 1, 2018, or the date specified in statute
	70.0 lb/hr (based on 0.5% S by weight)	06-096 CMR 140, BPT	35.5 lb/hr, 1-hour average
	35.5 lb/hr	A-368-70-A-I (10/24/2000), BPT	
NO <sub>x</sub>	0.30 lb/MMBtu	06-096 CMR 138, §3.B.(3), NO <sub>x</sub> RACT (A-368-71-F-M, February 17, 1995); 24-hr daily block arithmetic avg.	0.24 lb/MMBtu, 24-hour block average basis
	0.24 lb/MMBtu	A-368-70-E-A (1/4/2005), BPT	
	161.3 lb/hr	A-368-70-E-A (1/4/2005), BPT	161.3 lb/hr, 1-hour avg. basis
CO	0.60 lb/MMBtu	A-368-71-A-N (3/10/1987), BPT	0.60 lb/MMBtu based on a 24-hour block average via CEM
	403.2 lb/hr	A-368-70-A-I (10/24/2000), BPT	403.2 lb/hr, 1-hour average basis
VOC	47.0 lb/hr	A-368-70-A-I (10/24/2000), BPT	47.0 lb/hr, 1-hour average basis
Visible Emissions	30% opacity on a six-minute block avg. basis	06-096 CMR 101, §2(B)(1)(e)	20% opacity on a six-minute block average basis, except for one six-minute period per hour of not more than 27% opacity
	20% opacity on a six-minute block avg. basis, except for one six-minute period per hour of not more than 27% opacity	40 CFR Part 60, Subpart Db, §60.42b(f)	
Lead (Pb)	0.08 lb/hr	A-368-70-B-M (7/3/2002), BPT	0.08 lb/hr
Ammonia (NH <sub>3</sub> )	20 ppm <sub>dv</sub> @ 12% CO <sub>2</sub>	A-368-70-E-A (1/4/2005), BPT	20 ppm <sub>dv</sub> @ 12% CO <sub>2</sub> , based on a 3-run emissions test
	9.04 lb/hr		9.04 lb/hr, based on a 3-run emissions test

\* Only includes filterable PM<sub>10</sub> in accordance with the test methods specified below.

For the purposes of the above emission limits and averaging times, a 24-hour block average basis shall be defined as midnight to midnight. [A-368-70-E-A (1/4/2005), BPT]

8. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #1 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

<b>Pollutant</b>	<b>Applicable Emission Limit</b>	<b>Compliance Method</b>	<b>Frequency</b>
PM	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5	Once every five years or more frequently if requested by the Department
PM <sub>10</sub>	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO <sub>2</sub>	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NO <sub>x</sub>	lb/MMBtu	NO <sub>x</sub> CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 CFR Part 60, App. B)
	lb/hr	40 CFR Part 60, App. A, Method 7	As requested
CO	lb/MMBtu	CO CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 CFR Part 60, App. B)
	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested
Lead (Pb)	lb/hr	40 CFR Part 60, App. A, Method 12	As requested
NH <sub>3</sub>	ppmdv and lb/hr	EPA's Conditional Test Method for Ammonia (CTM-027)	Once every two calendar years*
Visible Emissions	% opacity	COMS on a six-minute block average basis	Continuously (in accordance with 40 CFR Part 60, App. B)

\* Testing for NH<sub>3</sub> is only required if NH<sub>3</sub> is used in the boiler within the previous calendar year.

9. Compliance Assurance Monitoring (CAM)

For Boiler #1, CAM is applicable to PM emissions, as follows:

Indicator	Opacity
<b>General Criteria</b>	
Measurement Method	Continuous Opacity Monitoring System (COMS)
Indicator Range	9% opacity. Except during periods of startup, shutdown, or malfunction, if the opacity is above this value on a six-minute block average basis for ten consecutive six-minute block periods, it is considered an excursion. An excursion will require an inspection of the ESP within four hours of documentation of the excursion, corrective action based on the findings of the inspection, and a reporting requirement.
<b>Performance Criteria</b>	
Data Representativeness QA/QC	The COMS shall be installed, maintained, and tested in accordance with 06-096 CMR 117.
Monitoring Frequency	Thirty-six (36) data values relatively equally spaced over each six-minute block.
Data Collection Procedure	Data shall be recorded and stored electronically.
Averaging Period	Over a six-minute period.

CAM monitoring requirements are included in the monitoring sections below.

10. Periodic Monitoring

RST shall monitor and record values for Boiler #1 and its associated air pollution control equipment as indicated in the following tables whenever the equipment is operating.

CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency	
				Measure	Record
N	Wood fuel use	Tons	Conveyor belt scales	Daily	Daily, monthly, and 12-month rolling total
N	CDW fuel use	Tons	Records of fuel received and burned		
N	Waste fiber fuel use	Tons	Records of fuel quantity added to biomass	Monthly and 12-month rolling total	
N	Clarifier waste cake fuel use	Tons	Records of fuel received and burned		
N	Distillate fuel use	Gallons	Fuel flow meter	Hourly	
N	Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased	
N	Waste oil use	Gallons	Estimation of amount collected and burned	Daily	

CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency	
				Measure	Record
N	Operating time	Hours	Boiler control system	Daily, monthly, and annually (calendar year basis)	
N	Steam production	Pounds per hour	Steam flow meter	Continuously*	Every half hour
N	Steam temperature	°F	Thermocouple		
N	Maintenance activity records	Each	Record in logbook	As it occurs	

\* *Continuously* as used here means at least three (3) data points in each full operating hour with at least one (1) data point in each half-hour period.

ECOTUBE System on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
N	Urea injection system use	Dates operated	Record in logbook	As operated
N	Urea Usage	Gallons	Flow meter	Daily, monthly, and calendar year

Multiclone on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
Y	Gas pressure drop across Multiclone	psig	Pressure gauges	Once per shift
Y	Inlet gas temperature	Degrees	Thermocouple	
Y	Outlet gas temperature	Fahrenheit		

ESP on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
Y	Primary Voltage	Volts or kilovolts	Volt meter	Once per shift
Y	Secondary Voltage		Volt meter	
Y	Primary Current	Amps	Amp meter	
Y	Secondary Current		Amp meter	
Y	Spark Rate	Sparks/min	ESP control system	
Y	Gas pressure drop across ESP	psig	Pressure gauges	Once per shift
Y	Inlet gas temperature	Degrees	Thermocouple	Continuously
Y	Outlet gas temperature	Fahrenheit		

11. Parameter Monitors

There are no Parameter Monitors required for Boiler #1.

12. CEMS and COMS

For Boiler #1, the table below lists the required continuous emission monitoring systems (CEMS) and the continuous opacity monitoring systems (COMS).

<u>Pollutant and Continuous Monitor</u>	<u>Unit of Measurement</u>	<u>Origin and Authority</u>
NO <sub>x</sub> CEMS	ppm -converted to lb/MMBtu	06-096 CMR 117 and 06-096 CMR 138
CO CEMS		
O <sub>2</sub> CEMS	%	06-096 CMR 117
Opacity COMS	%	

Data from periods of high O<sub>2</sub> (greater than 16% O<sub>2</sub>) in the stack gas compromise the ability of the CEMS to appropriately account for CO and NO<sub>x</sub> lb/MMBtu emission rates, from monitored ppm emission rates, and are therefore not appropriate to be included for calculation purposes. In order to resolve this issue, the Department will allow the facility to flag the event as a startup, shutdown, or malfunction and exclude the data from being used in emission rate compliance calculations. [A-368-70-F-R (January 26, 2010)]

**B. Generators and Engines: Diesel Unit 1, Diesel Unit 2, and Propane Unit 1**

RST operates three emergency generators/engines rated at 3.33 MMBtu/hr, 1.37 MMBtu/hr, and 0.78 MMBtu/hr. Diesel Unit 1 and Diesel Unit 2 fire distillate fuel, and Propane Unit 1 fires propane. The units were manufactured in 1992, 1988, and 1988, respectively.

1. New Source Performance Standards (NSPS)

The federal regulation 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, is applicable to diesel engines ordered after July 11, 2005, and manufactured after April 1, 2006. Since RST's diesel engines were installed in 1988 and 1992, they are not subject to this subpart.

Due to its date of manufacture, RST's Propane Unit 1 is not subject to 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*.

2. NESHAP: 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 the emergency generators and fire pump engine listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source and are 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 these units 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*, 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 5% or greater deviation of voltage or frequency 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 as follows: 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:

- i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- ii. 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.
- iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.
- iv. The power is provided only to the facility itself or to support the local transmission and distribution system.
- v. 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.

Diesel Unit 1, Diesel Unit 2, and Propane Unit 1 shall be limited to the usage outlined in 40 CFR §63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 CFR §63.6640(f) may

cause these engines to not be considered emergency engines 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:  <b>Diesel Unit 1, Diesel Unit 2</b>	<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>

	<b>Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))</b>
Spark ignition (natural gas, propane) units:  <b>Propane Unit 1</b>	<ul style="list-style-type: none"><li>- Change oil and filter every 500 hours of operation or annually, whichever comes first;</li><li>- Inspect spark plugs 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>

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

(2) Optional Oil Analysis Program

RST has the option of utilizing an oil analysis program which complies with the requirements of 40 CFR §63.6625(i) in order to extend the specified oil change requirement. If this option is used, RST 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 applicable engines. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]

- (4) Startup Idle and Startup Time Minimization Requirements  
During periods of startup, RST 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. [40 CFR §63.6625(h) and 40 CFR Part 63, Subpart ZZZZ, Table 2d]
- (5) Annual Time Limit for Maintenance and Testing  
The generators and engine shall each 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 (not including peak shaving, non-emergency demand response, or generating income by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]
- (6) Recordkeeping  
RST shall keep records that include maintenance conducted on the generators and engine and the hours of operation of each unit recorded through the non-resettable hour meter. Documentation shall include the number of hours of emergency operation, including what classified the operation as emergency, and the number of hours of non-emergency operation. If the units are 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 40 CFR §63.6640(f)(4)(ii), RST 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/Year (and greater than 100 brake hp)  
If RST 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 for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in 40 CFR §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), 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)]

3. BACT/BPT Findings

The BACT/BPT emission limits for the generators and engines are based on the following:

Pollutant	Diesel Unit 1 and Diesel Unit 2 (Distillate Fuel)		Propane Unit 1 (Propane)	
	Emission Factor, lb/MMBtu	Source of Emission Factor	Emission Factor, lb/MMBtu	Source of Emission Factor
PM, PM <sub>10</sub>	0.12 (Diesel Unit 1)	06-096 CMR 103 (2)(B)(1)(a)	7.71E-05	AP-42 Table 3.2-2 (7/00)
	0.31 (Diesel Unit 2)	AP-42 Table 3.3-1 (10/96)		
SO <sub>2</sub>	0.0015	Firing distillate fuel with a max. sulfur content of 15 ppm (0.0015% by weight)	5.88E-04	AP-42 Table 3.2-2 (7/00)
NO <sub>x</sub>	4.41	AP-42 Table 3.3-1 (10/96)	4.08	
CO	0.95		0.317	
VOC	0.36		0.118	
Visible Emissions	N.A.	06-096 CMR 101 (2)(B)(1)(d)	N.A.	06-096 CMR 101 (2)(B)(1)(d)

The BACT/BPT emission limits for the generators and engine are the following:

Unit	PM lb/MMBtu	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)
Diesel Unit 1 3.33 MMBtu/hr, distillate fuel	0.12	0.40	0.40	0.001	14.69	3.16	1.20
Diesel Unit 2 1.37 MMBtu/hr, distillate fuel	--	0.42	0.42	0.001	6.04	1.30	0.49
Propane Unit 1 0.78 MMBtu/hr, propane	--	negligible			3.18	0.25	0.09

Visible emissions from Diesel Unit 1 and from Diesel Unit 2 shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

Visible emissions from Propane Unit 1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period.

Diesel Unit 1, Diesel Unit 2 (the fire pump), and Propane Unit 1 shall not exceed 100 hours of operation per year for each unit. [A-368-71-C-A-R (7/26/1991) and A-368-71-F-M (2/17/1995); NO<sub>x</sub> RACT]

4. Emission Compliance Methods

Compliance with the emission limits associated with Diesel Unit 1, Diesel Unit 2, and Propane Unit 1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Periodic Monitoring

RST shall monitor and record values for Diesel Unit 1, Diesel Unit 2, and Propane Unit 1, as applicable, indicated in the following table.

<b>Value</b>	<b>Units of Measure</b>	<b>Monitoring Tool/Method</b>	<b>Frequency</b>
Distillate Fuel Sulfur Content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating Time	Hours	Hour Meter	Monthly and 12-month rolling total
Type of Operation (emergency, maintenance, etc.)	N/A	Logbook	As occurs

**C. Parts Washers**

RST utilizes two parts washers at the facility, one with a 40-gallon capacity in the Heavy Equipment Service/Maintenance Building, and one with a 20-gallon capacity in the boiler building lower floor. Based on the solvent used, they are subject to applicable requirements of *Solvent Cleaners*, 06-096 CMR 130 (as amended).

Periodic monitoring for the parts washers shall consist of recordkeeping including records of solvent added and removed.

**D. Facility Annual Emissions**

1. Total Annual Emissions

RST is licensed for the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- Boiler #1 operating 8,760 hours/year and licensed emission limits
- Emergency generators and engines operating for 100 hours/year each

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>NH<sub>3</sub></b>	<b>Lead</b>
Boiler #1	88.5	88.5	155.5	706.5	1766.0	205.9	39.6	0.35
Diesel Unit 1	0.02	0.02	negligible	0.7	0.16	0.06	--	--
Diesel Unit 2	0.02	0.02		0.3	0.07	0.02	--	--
Propane Unit 1	negligible			0.16	0.01	0.005	--	--
<b>Total TPY</b>	<b>88.5</b>	<b>88.5</b>	<b>155.5</b>	<b>707.7</b>	<b>1766.2</b>	<b>206.0</b>	<b>39.6</b>	<b>0.35</b>

<b>Pollutant</b>	<b>Tons/year</b>
Single HAP	9.9
Total HAP	24.9

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 limits; 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; CO<sub>2</sub>e emissions from RST is below 100,000 tons per year.

#### IV. AMBIENT AIR QUALITY ANALYSIS

RST 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. The results of this analysis are contained in Air Emission License A-368-71-C-A/R, (July 26, 1991). An additional ambient air quality analysis is not required for this Part 70 License.

#### ORDER

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

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

The Department hereby grants the Part 70 License A-368-70-L-R pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to RST pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that the Department 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 supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements of 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

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

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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 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. [06-096 CMR 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the Clean Air Act (CAA) unless specifically designated as state enforceable. [06-096 CMR 140]
- (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. [06-096 CMR 140]
- (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. [06-096 CMR 140]
- (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 affect the provisions of Section 303 of the Clean Air Act (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 April 23, 2014. [06-096 CMR 140]

Source	Citation	Description	Basis for Determination
Boiler #1	06-096 CMR 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	VOC source is combustion source and exempt per 06-096 CMR134 (1)(C)(4).
Boiler #1	40 CFR Part 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators	Unit was constructed after 6/19/1986 and meets the applicability requirements of 40 CFR §60.40b (a)
Boiler #1	40 CFR Part 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units	Fossil fuel firing capacity is less than 250 MMBtu/hour [40 CFR §60.40Da (a)]
Boiler #1	40 CFR §60.44b(c)	There is no NSPS NO <sub>x</sub> limit if the affected facility has an annual capacity factor less than 10% for oil firing in combination with firing wood.	Boiler 1 has an annual capacity factor less than 10% for oil firing.
Generators and Engines	40 CFR Part 64	Compliance Assurance Monitoring	Units do not utilize pollution control equipment.
Diesel Unit 2 (Fire Pump)	06-096 CMR 103, Section 2(B)(4)(c)	Particulate emission limit for fuel burning equipment > 3.0 MMBtu/hr.	Unit is < 3.0 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 under the following circumstances [06-096 CMR 140]:
- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no reopening 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 06-096 CMR 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. [06-096 CMR 140]

### 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 (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 06-096 CMR 140. [06-096 CMR 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. [06-096 CMR 140] **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.
- (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. [06-096 CMR 140]  
**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.  
[06-096 CMR 140]

(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. [06-096 CMR 140]

(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:

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;
2. To demonstrate compliance with the applicable emission standards; or
3. 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 140] **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.

[06-096 CMR 140] **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 of any emission standard 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 M.R.S.A. § 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.

[06-096 CMR 140]

- (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. [06-096 CMR 140]

- (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. [06-096 CMR 140]
- (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.
- [06-096 CMR 140]

#### **SPECIFIC CONDITIONS**

(14) **Boiler # 1**

A. Fuels

1. Boiler #1 is licensed to fire biomass, distillate fuel, and specification waste oil. Biomass fired in Boiler #1 may include conventional chipped wood fuel, waste fiber, clarifier waste cake, other plant-derived fuel, and processed construction and demolition wood (CDW). [A-368-70-F-R (January 26, 2010) and 06-096 CMR 140, BPT]
2. CDW Fuel [06-096 CMR 140, BPT]

Prior to resuming CDW combustion, RST shall fulfill the following requirements:

- a. Notify the Department of RST's intention to resume combustion of CDW.
- b. Conduct emissions testing for HCl when firing CDW to determine whether or not HCl emissions are above the 10 tpy threshold such that the facility is a major source for HCl HAP emissions.
- c. If testing results establish the applicability of Boiler MACT requirements, RST shall submit a compliance plan addressing requirements of 40 CFR Part 63, Subpart DDDDD within 90 days of resuming CDW combustion.

- d. RST shall be in compliance with applicable criteria and deadlines of Subpart DDDDD within three years of the date the facility becomes subject to this Subpart. [40 CFR §63.7495(c)(2)]

3. Fuel Oil Firing Limitations

- a. The maximum heat input capacity from oil in Boiler #1 when firing distillate fuel for boiler start-up and flame stabilization shall not exceed 140.0 MMBtu/hour (1,000 gal/hour). The flow rate shall be recorded hourly by a Distributed Control System (DCS). [A-368-70-A-I (10/24/2000), BPT]
- b. Combined distillate fuel and waste oil use in Boiler #1 and the R-SCR shall not exceed 3,000 gallons per three-hour period, 24,000 gallons/day, or 4,204,800 gallons/year (12-month rolling total). This annual fuel use cap ensures RST meets the <10% capacity factor for oil. Fuel flow monitors shall be operated and maintained to demonstrate compliance.
- c. RST may burn no more than 5,000 gallons per year of on-site generated waste oil in Boiler #1. Only waste oil meeting the criteria "specification" or "off-specification" waste oil (as defined in the Department's *Waste Oil Management Rules*) shall be burned in Boiler #1.

A log shall be maintained recording the quantities of specification and off-specification waste oil burned in Boiler #1 and shall be made available to the Department upon request. [A-368-70-A-I (10/25/2000), BPT]

4. Fuel Sulfur Content [06-096 CMR 140, BPT; 38 MRSA §603 A (2)(A)(3)]

- a. Until July 1, 2016, or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight).
- b. Beginning July 1, 2016, or on the date specified in 38 MRSA §603-A (2)(A)(3), the distillate fuel fired shall not exceed a maximum sulfur content limit of 0.005% by weight (50 ppm).
- c. Beginning January 1, 2018, or on the date specified in 38 MRSA §603-A (2)(A)(3), distillate fuel fired shall not exceed a maximum sulfur content limit of 0.0015% by weight (15 ppm).
- d. Sulfur content compliance shall be demonstrated by fuel delivery receipts if the maximum sulfur content delivered is at or below the sulfur content limits listed above. If the percent sulfur of the fuel oil is not available from the supplier, an analysis of the fuel oil may be taken

and tested to determine the sulfur content, per 40 CFR §60.42b(j)(1) and Appendix A, Method 19. [A-368-70-A-I (10/25/2000), BPT]

5. Waste Fiber Fuel

RST shall limit the annual waste fiber fuel usage in Boiler #1 to 138,583 tons per year of waste fiber (as fired) on a 12-month rolling total basis, documented by purchase records identifying the type and quantity of fiber. [A-368-70-A-I (10/24/2000), BPT]

6. Clarifier Waste Cake Fuel

RST shall limit the quantity of clarifier waste cake burned in Boiler #1 to 1,000 tons per year (as fired). Compliance is based on recording the quantity of waste cake incorporated into the fuel pile on a 12-month rolling total. [A-368-70-A-I (10/24/2000), BPT]

B. Steam Production [A-368-70-A-I (10/24/2000), BPT]

Boiler #1 steam production shall be limited to 500,000 lb/hour. RST shall monitor and record steam flow rate and steam temperature continuously for Boiler #1 to document compliance with this limit. For the purposes of this requirement, *continuously* is defined as at least three data points in each full operating hour, with at least one data point in each half-hour period.

C. Ash and flyash from Boiler #1 shall be disposed of in accordance with the Department's Bureau of Remediation and Waste Management. Ash shall be sufficiently conditioned with water or transported in covered (or enclosed) containers so as to prevent fugitive emissions. [A-368-70-A-I (10/25/2000), BPT] **Enforceable by State Only**

D. RST shall maintain records of the amounts of fuels combusted each day and calculation of annual capacity factor individually for wood and oil for each reporting period. RST shall maintain monthly fuel use records and determine an annual capacity factor on a 12-month rolling average basis with the new annual capacity calculated at the end of each calendar month. [A-368-70-A-I (10/24/2000), BPT]

E. RST shall notify the Department of any smoldering/smoking fuel piles or fuel pile fires by the next business day. The trigger for notification shall be visible emissions from a fuel pile in excess of the 06-096 CMR 101 fugitive emissions limit of 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [A-368-70-B-M (7/3/2002), BPT]

F. Boiler #1 Emission Limits

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

Pollutant	Licensed Emission Limits For Each Unit	Origin and Authority
PM	0.03 lb/MMBtu	A-368-71-A-N (March 10, 1987), BACT
	20.2 lb/hr, 1-hour average	A-368-71-A-I (October 24, 2000), BPT
PM <sub>10</sub>	0.03 lb/MMBtu	A-368-71-A-N (March 10, 1987), BACT
	20.2 lb/hr, 1-hour average	A-368-71-A-I (October 24, 2000), BPT
SO <sub>2</sub>	Distillate fuel, ASTM D396 compliant (0.5% S)	06-096 CMR 140, BPT
	0.005% S (50 ppm) limit, Distillate fuel beginning 7/1/2016, or the date specified in statute	38 MRSA §603-A(2)(A)(3)
	0.0015% S (15 ppm) limit, Distillate fuel beginning 1/1/2018, or the date specified in statute	
	35.5 lb/hr, 1-hour average	A-368-70-A-I (10/24/2000), BPT
NO <sub>x</sub>	0.24 lb/MMBtu; 24-hr daily block arithmetic average	06-096 CMR 138, §3.B.(3), NO <sub>x</sub> RACT (A-368-71-F-M, Feb. 17, 1995)
		A-368-70-E-A (1/4/2005), BPT
	161.3 lb/hr, 1-hour average basis	A-368-70-E-A (1/4/2005), BPT
CO	0.60 lb/MMBtu based on a 24-hour block average via CEM	A-368-71-A-N (3/10/1987), BPT
	403.2 lb/hr, 1-hour average basis	A-368-70-A-I (10/24/2000), BPT
VOC	47.0 lb/hr, 1-hour average	A-368-70-A-I (10/24/2000), BPT
Visible Emissions	20% opacity on a six-minute block average basis, except for one six-minute period per hour of not more than 27% opacity	06-096 CMR 101, §2(B)(1)(e)
		40 CFR Part 60, Subpart Db, §60.42b(f)
Lead (Pb)	0.08 lb/hr, based on three, one-hour tests	A-368-70-B-M (7/3/2002), BPT
Ammonia (NH <sub>3</sub> )	20 ppmdv @ 12% CO <sub>2</sub> , 24-hour block average basis	A-368-70-E-A (1/4/2005), BPT
	9.04 lb/hr, 24-hour block average basis	

For the purposes of the above emission limits and averaging times, a 24-hour block used in determining a 24-hour block average shall be defined as midnight to midnight. [A-368-70-E-A (1/4/2005), BPT]

A 24-hour block average will be considered valid if it contains at least 18 valid hourly averages, as defined in 06-096 CMR 117. [06-096 CMR 117 (3)(C)(2)(b)(v)]

G. Control Equipment

1. RST shall control particulate matter emissions from Boiler #1 by use of a multiple centrifugal cyclone separator (multiclone) followed by an ESP.

While burning CDW, with the exception of startup, shutdown, and malfunction, RST shall operate the four-cell ESP with all fields energized. If a malfunction should result in loss of an ESP field or chamber at any time while combusting greater than 10% CDW, RST must take immediate action to correct the failed field or chamber and return it to service within 72 hours unless provisions to combust only non-CDW fuels have been executed within this time.

While burning only non-CDW fuels, RST shall operate, at a minimum, the number of ESP fields in operation during the most recent stack test demonstrating compliance with licensed PM emission limits. Upon written notification to the Department, and in accordance with the *Bureau of Air Quality's Air Emission Compliance Test Protocol*, RST may perform additional PM emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall RST be relieved of its obligation to meet its licensed emission limits.

RST shall maintain a log of all maintenance performed on each cyclone, as well as a log documenting the nature of all failures and corrective actions taken. [06-096 CMR 140, BPT]

2. RST shall operate add-on NO<sub>x</sub> emission control technology as needed to meet the NO<sub>x</sub> emission limit for this unit. [06-096 CMR 138]
3. RST is not required to operate either the R-SCR system or the Ecotube system during Boiler #1 operation provided the NO<sub>x</sub> emission limits set forth in this license are met. [06-096 CMR 140, BPT]
4. When either the R-SCR system or the Ecotube System is operated, ammonia shall not be injected into the system during start-up or shutdown unless the catalyst bed is at or above the minimum operation temperature as specified by the manufacturer. [A-368-70-E-A (1/4/2005), BPT]

RST shall maintain records of the use of urea and ammonia injection, including dates injection is utilized and amounts of reagent used on a daily, monthly, and 12-month rolling total basis. [06-096 CMR 140, BPT]

5. RST must comply with the NO<sub>x</sub> emission rate of 0.24 lbs/MMBtu at all times except during plant startup and low load conditions of less than 30 MW net generation. During these times, the NO<sub>x</sub> emission rate shall be no greater than 0.30 lbs/MMBtu. [A-368-70-E-A (1/4/2005), BPT]

H. Compliance Assurance Monitoring [40 CFR Part 64]

RST shall meet the following PM CAM requirements for Boiler #1:

Indicator	Opacity
<b>General Criteria</b>	
Measurement Method	Continuous Opacity Monitoring System (COMS)
Indicator Range	9% opacity. Except during periods of startup, shutdown, or malfunction, if the opacity is above this value on a six-minute block average basis for ten consecutive six-minute block periods, it is considered an excursion. An excursion will require an inspection of the ESP within four hours of documentation of the excursion, corrective action based on the findings of the inspection, and a reporting requirement.
<b>Performance Criteria</b>	
Data Representativeness	The COMS shall be installed, maintained, and tested in accordance with 06-096 CMR 117.
QA/QC	
Monitoring Frequency	Thirty-six (36) data values relatively equally spaced over each six-minute block.
Data Collection Procedure	Data shall be recorded and stored electronically.
Averaging Period	Over a six-minute period.

I. Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 CMR 140]:

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5	Once every five years or more frequently if requested by the Department
PM <sub>10</sub>	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO <sub>2</sub>	lb/hr	40 CFR Part 60, App. A, Method 6	
NO <sub>x</sub>	lb/MMBtu	NO <sub>x</sub> CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 CFR Part 60, App. B)
	lb/hr	40 CFR Part 60, App. A, Method 7	As requested
CO	lb/MMBtu	CO CEMS on a 24-hour block average basis; midnight to midnight	Continuously (in accordance with 40 CFR Part 60, App. B)
	lb/hr	40 CFR Part 60, App. A, Method 10	As requested

<u>Pollutant</u>	<u>Applicable Emission Limit</u>	<u>Compliance Method</u>	<u>Frequency</u>
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested
Lead (Pb)	lb/hr	40 CFR Part 60, App. A, Method 12	
NH <sub>3</sub>	ppmdv and lb/hr	EPA's Conditional Test Method for Ammonia (CTM-027)	Once every two calendar years*
Visible Emissions	% opacity	COMS on a six-minute block average basis	Continuously (in accordance with 40 CFR Part 60, App. B)

\* Testing for NH<sub>3</sub> is only required if NH<sub>3</sub> is used in the boiler within the previous calendar year.

J. Periodic Monitoring

RST shall monitor and record values for Boiler #1 and its associated air pollution control equipment as indicated in the following tables whenever the equipment is operating. [06-096 CMR 140, BPT]

<u>Value</u>	<u>Units of Measure</u>	<u>Monitoring Tool/Method</u>	<u>Frequency</u>	
			<u>Measure</u>	<u>Record</u>
Wood fuel use	Tons	Conveyor belt scales	Daily	Daily, monthly, and 12-month rolling total
CDW fuel use	Tons	Records of fuel received and burned		
Waste fiber fuel use	Tons	Records of fuel quantity added to biomass	Monthly and 12-month rolling total	
Clarifier waste cake fuel use	Tons	Records of fuel received and burned		
Distillate fuel use	Gallons	Fuel flow meter	Hourly	
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased	
Waste oil use	Gallons	Estimation of amount collected and burned	Daily	
Operating time	Hours	Boiler control system	Daily, monthly, and annually (calendar year basis)	
Steam production	lb per hour	Steam flow meter	Continuously*	Every half hour
Steam temperature	°F	Thermocouple		
Maintenance activity records	Each	Record in logbook	As it occurs	

\* *Continuously* as used here means at least three (3) data points in each full operating hour with at least one (1) data point in each half-hour period.

ECOTUBE System on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
N	Urea injection system use	Dates operated	Record in logbook	As operated
N	Urea Usage	Gallons	Flow meter	Daily, monthly, and calendar year

Multiclone on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
Y	Gas pressure drop across Multiclone	psig	Pressure gauges	Once per shift
Y	Inlet gas temperature	Degrees Fahrenheit	Thermocouple	
Y	Outlet gas temperature			

ESP on Boiler #1				
CAM? (Y/N)	Value	Units of Measure	Monitoring Tool/Method	Frequency
Y	Primary Voltage	Volts or kilovolts	Volt meter	Once per shift
Y	Secondary Voltage	Volts or kilovolts	Volt meter	
Y	Primary Current	Amps	Amp meter	
Y	Secondary Current	Amps	Amp meter	
Y	Spark rate	Sparks/min	ESP control system	
Y	Gas pressure drop across ESP	psig	Pressure gauges	Once per shift
Y	Inlet gas temperature	Degrees Fahrenheit	Thermocouple	Continuously
Y	Outlet gas temperature			

RST shall maintain records of maintenance conducted on Boiler #1 and its associated pollution control equipment. [A-368-70-A-I (10/25/2000), BPT]

K. CEMS and COMS

RST shall operate and maintain the following continuous emission monitoring systems (CEMS) and the continuous opacity monitoring system (COMS) for Boiler #1 whenever the unit is operating:

Pollutant and Continuous Monitor	Unit of Measurement	Origin and Authority
NO <sub>x</sub> CEMS	ppm -converted to lb/MMBtu	06-096 CMR 117 and 06-096 CMR 138
CO CEMS		
O <sub>2</sub> CEMS	%	06-096 CMR 117
Opacity COMS	%	

For periods of boiler startup, shutdown, or malfunction during which CEMS data show periods of high O<sub>2</sub> (greater than 16% O<sub>2</sub>) in the stack gas, RST may identify the event, as appropriate (as startup, shutdown, or malfunction), and exclude the data from emission rate compliance calculations, though the data during such occurrences must still be maintained and reported. [A-368-70-F-R (January 26, 2010)]

L. NESHAP: 40 CFR Part 63, Subpart JJJJJ

RST shall meet all applicable requirements in 40 CFR Part 63, Subpart JJJJJ, including but not limited to the following requirements: [40 CFR Part 63, Subpart JJJJJ and 06-096 CMR 140, BPT]

1. Boiler Tune-Up Program

a. A boiler tune-up program shall be implemented to include the initial tune-up of Boiler #1. [40 CFR §63.11223]

(1) Each tune-up of Boiler #1 shall be conducted every five years. [40 CFR §63.11223(a) and Table 2]

(2) A 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 both 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 §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 §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 72 months from the previous inspection of boilers with oxygen trim systems such as Boiler #1. [40 CFR §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 §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 72 months from the previous inspection. [40 CFR §63.11223(b)(3)]
  - (4) Optimize total emissions of CO consistent with manufacturer's specifications. [40 CFR §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, both 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 §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 of the unit. [40 CFR §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 §63.11225(a)(4) and 40 CFR §63.11214(b)]

2. Energy Assessment

Boiler #1 is subject to the energy assessment requirements of 40 CFR Part 63, Subpart JJJJJ, as follows:

- a. A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR §63.11196(a)(3)]
- b. The energy assessment is required to include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Subpart JJJJJ, Table 2, #4]

- c. A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR §63.11225(a)(4) and 40 CFR §63.11214(c)]

3. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJ including the following [40 CFR §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. [40 CFR §63.1125(a)(4)(vi)]

(15) **Generators and Engines: Diesel Unit 1, Diesel Unit 2, and Propane Unit 1**

A. Allowable Operation and Fuels

1. Diesel Unit 1 and Diesel Unit 2 are licensed to fire distillate fuel; and Propane Unit 1 is licensed to fire propane. [06-096 CMR 140, BPT]
2. The distillate fuel sulfur content for Diesel Unit 1 and Diesel Unit 2 shall be limited to 0.0015% sulfur by weight. [06-096 CMR 140, BPT]
3. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]
4. Diesel Unit 1, Diesel Unit 2 (the fire pump), and Propane Unit 1 shall not exceed 100 hours of operation per year for each unit. [A-368-71-C-A-R (7/26/1991) and A 368 71 F M (2/17/1995); NOx RACT]

B. The BACT/BPT emission limits for the generators and engine are the following:

Unit	PM lb/MMBtu	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)
Diesel Unit 1 3.33 MMBtu/hr, distillate fuel	0.12	0.40	0.40	0.001	14.69	3.16	1.20

<u>Unit</u>	<u>PM</u> <u>lb/MMBtu</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>
Diesel Unit 2 1.37 MMBtu/hr, distillate fuel	--	0.42	0.42	0.001	6.04	1.30	0.49
Propane Unit 1 0.78 MMBtu/hr, propane	--	negligible			3.18	0.25	0.09

C. Visible Emissions [06-096 CMR 101 (2)(B)(1)(d)]

Visible emissions from Diesel Unit 1 and from Diesel Unit 2 shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

Visible emissions from Propane Unit 1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period.

D. Emission Compliance Methods

Compliance with the emission limits associated with Diesel Unit 1, Diesel Unit 2, and Propane Unit 1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

E. Periodic Monitoring

RST shall monitor and record values for Diesel Unit 1, Diesel Unit 2, and Propane Unit 1, as applicable, indicated in the following table.

<u>Value</u>	<u>Units of Measure</u>	<u>Monitoring Tool/Method</u>	<u>Frequency</u>
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Monthly and 12-month rolling total
Type of Operation (emergency, maintenance, etc.)	N/A	Logbook	As occurs

RST shall maintain records of maintenance conducted on Diesel Unit 1, Diesel Unit 2, or Propane Unit 1. [A-368-70-A-I (10/25/2000), BPT]

F. Applicable Requirements of 40 CFR Part 63, Subpart ZZZZ

1. RST shall meet the following operational limitations for each compression ignition emergency generator (Diesel Unit 1 and Diesel Unit 2):
  - 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.

2. RST shall meet the following operational limitations for the spark ignition emergency generator (Propane Unit 1):
  - a. Change the oil and filter annually,
  - b. Inspect the spark plugs annually and replace as necessary, and
  - c. Inspect the hoses and belts annually and replace as necessary.
3. Records shall be maintained documenting compliance with the operational limitations.

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

4. Oil Analysis Program Option

RST 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, RST shall 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)]

5. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each generator and engine. [40 CFR §63.6625(f)]

6. Startup Idle and Startup Time Minimization Requirements

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

7. Annual Time Limit for Maintenance and Testing

The generators and engine shall each 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 (not including peak shaving, non-emergency demand response, or generating income by providing power to an electric grid or otherwise supplying power as part of a financial arrangement with another entity unless the conditions in 40 CFR §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f) and 06-096 CMR 115, BPT]

8. Recordkeeping

RST shall keep records that include maintenance conducted on the generators and engine and the hours of operation of each unit recorded through the non-resettable hour meter. Documentation shall include the number of hours of emergency operation, including what classified the operation as emergency, and the number of hours of non-emergency operation. If the units are 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 40 CFR §63.6640(f)(4)(ii), RST 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)]

9. Operation and Maintenance

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

10. Requirements for Demand Response Availability Over 15 Hours/Year (and greater than 100 brake hp)

If RST 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 for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in 40 CFR §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), 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)]

(16) **Parts Washers** [06-096 CMR 130]

- A. RST 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:
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 06-096 CMR 130.
1. RST shall attach a permanent conspicuous label to each unit summarizing the following operational standards:
    - a. Waste solvent shall be collected and stored in closed containers.
    - b. 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.
    - c. 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.
    - d. The cold cleaning machine shall not be exposed to drafts with wind speed greater than 40 meters per minute when the cover is open.
    - e. Sponges, fabric, wood, leather, paper products, and other absorbent materials shall not be cleaned in the parts washer.
    - f. 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.
    - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
    - h. Work area fans shall not blow across the opening of the parts washer.
    - i. The solvent level shall not exceed the fill line.
  2. The remote reservoir cold cleaning machines shall be equipped with a perforated drain with a diameter of not more than six inches.

(17) **General Process Sources**

All wood conveyors and transfer points shall be covered or enclosed. Visible emissions from any general process source including chippers shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [A-368-70-A-I (10/25/2000), BPT]

(18) **Fugitive Emissions**

Visible emissions from a fugitive emission source, including stockpiles and roadways, shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. [06-096 CMR 101]

Should wind action or handling or reclamation of wood chips result in visible emissions in excess of 5% opacity, action shall be taken to eliminate visible emissions in excess of 5% opacity on a six-minute average basis. [A-368-70-A-I (10/25/2000), BPT]

(19) **CEMS Recordkeeping [06-096 CMR 140] Enforceable by State-only**

- A. The licensee shall maintain records documenting that all required CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117 (as amended), 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;
- B. The licensee shall maintain 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; and
- C. The licensee shall maintain records of other data indicative of compliance with the applicable emission standards 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 Department's request, provide additional data and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.

(20) **Compliance Assurance Monitoring (CAM) – General Requirements**  
[40 CFR Part 64]

- A. The licensee shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan.
- B. Any excursion shall be reported in semiannual reports. If excursions occur, the licensee must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification.
- C. Upon detecting an excursion, the licensee shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR §64.7(d)]

- D. Prior to making any changes to the approved CAM plan, the licensee shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR §64.7(e)]
- E. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 CMR 140, BPT]

(21) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Department within 30 days after the end of each calendar quarter detailing the following for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS), and Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 CMR 117]

- A. All control equipment downtimes and malfunctions;
- B. All CEMS or COMS downtimes and malfunctions;
- C. All parameter monitor downtimes and malfunctions;
- D. All excess events of emission and operational limitations set by this Order, Statute, state regulations, or federal regulations, as appropriate. The following information shall be reported for each excess event:
1. Standard exceeded;
  2. Date, time, and duration of excess event;
  3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;
  4. A description of what caused the excess event;
  5. The strategy employed to minimize the excess event; and
  6. The strategy employed to prevent reoccurrence.
- E. A report certifying there were no excess emissions, if that is the case.

(22) **Semiannual Reporting** [06-096 CMR 140]

- A. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31<sup>st</sup>** and **July 31<sup>st</sup>** of each year. The facility's designated responsible official must sign this report.

- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
- D. Each semiannual report shall include the annual capacity factor of Unit for each fuel fired in Boiler #1.
- E. 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.

(23) **Annual Compliance Certification**

RST shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 CMR 140]

(24) **Annual Emission Statement** [06-096 CMR 137]

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by the date as specified in 06-096 CMR 137 and by means of either of the following:

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

(25) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

<b>Origin and Authority</b>	<b>Requirement Summary</b>	<b>Enforceability</b>
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulations	-
06-096 CMR 110	Ambient Air Quality Standards	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(26) **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. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 CFR, Part 82, Subpart F]

(27) **Asbestos Abatement**

When undertaking Asbestos abatement activities, RST shall comply with the Standard for Asbestos Demolition and Renovation 40 CFR Part 61, Subpart M.

(28) **Expiration of a Part 70 license**

- A. RST shall submit a complete Part 70 renewal application at least six months but not more than 18 months prior to the expiration of this air license.
- B. Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the Part 70 license renewal application. An existing source submitting a complete renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

ReEnergy Stratton, LLC  
Franklin County  
Stratton, Maine  
A-368-70-L-R

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

(29) **New Source Review**

RST is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license, and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emission License A-368-70-L-R expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 4 DAY OF February, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

**The term of this license shall be five (5) years from the signature date above.**

[Note: If a renewal application, determined as complete by the Department, is submitted at least six months but no more than 18 months prior to the expiration date of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 25, 2014

Date of application acceptance: April 28, 2014

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

