



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

**Boralex-Livermore Falls, LP
Androscoggin County
Livermore Falls, Maine
A-555-70-G-R**

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

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

I. REGISTRATION

A. Introduction

FACILITY	BORALEX – LIVERMORE FALLS (BLF)
RENEWAL LICENSE NUMBER	A-555-70-G-R
LICENSE TYPE	Part 70 Renewal
NAIC CODES	4911 – Electrical Generation
NATURE OF BUSINESS	Electric Generating Station
FACILITY LOCATION	267 Diamond Road, Livermore Falls
DATE OF RENEWAL LICENSE ISSUANCE	April 15, 2009
LICENSE EXPIRATION DATE	April 15, 2014

B. Emission Equipment

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

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	585.9 MMBtu/hr	Wood boiler
Diesel Generator #3	3.7 MMBtu/hr	Generator
Diesel Fire Pump #1	1.6 MMBtu/hr	Fire Pump

BLF has additional activities not listed in the emission equipment table above, which are insignificant, but may be found in the renewal application submitted in March of 2004.

C. Application Classification

The application for BLF does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of a Part 70 License issued under 06-096 CMR 140 for a Part 70 source. All amendments and New Source Review (NSR) licenses that have been issued since the initial Part 70 Air Emissions License, A-555-70-A-I, have been incorporated into this Part 70 air license renewal.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

II. EMISSION UNIT DESCRIPTION

A. Process Overview

BLF is a wood-fired electric generating facility in Livermore Falls, Maine. The facility consists of one 585.9 MMBtu/hr wood boiler which powers a 39.6 gross megawatt generator. Wood fuel is fed from six individual screw feeder bins directly to the spreader stoker where fuel is blown across a trajectory plate and into the furnace portion of the boiler. Fuel is distributed on the traveling grate (both front to rear and laterally) via high pressure transport air settings and the trajectory plate angle setting. Heavier particles are spread evenly on the back of the traveling grate surface while fine particles are rapidly burned in suspension. Undergrate air is evenly distributed through the active grate area to aid the combustion process. Three levels of high pressure overfire air jets provide turbulence and thorough mixing of fuel and air to complete the combustion process.

The boiler is constructed of water-cooled walls with one refractory wall adjacent to the stoker and is sized and constructed to provide the time, temperature, and turbulence necessary to provide good combustion of wood fuel. The boiler combustion control system automatically controls the fuel feeder speed and the undergrate and overfire air flow.

B. Boiler #1

Boiler #1 is a Zurn boiler, manufactured and installed in 1992 with a maximum firing rate of 585.9 MMBtu/hr firing wood fuel and is therefore subject to the provisions of New Source Performance Standards (NSPS) requirements 40 CFR Part.60, Subpart Db. Boiler #1 steam production rate is 367,400 #/hr based on a feed rate of 65.1 tons/hour at 4500 Btu per pound of wood fuel.

BLF is permitted to burn Reprocessed Wood Fuel (RWF) and Construction/Demolition Wood Fuel (CDWF) in Boiler #1 in addition to conventional wood fuel. Up to ten (10%) percent by weight of the annual fuel use and daily feed rate may be RWF, which for the purpose of this license shall consist of chipped utility poles, railroad ties, and other similar chemically treated wood products. Currently BLF does not include RWF in its fuel mix above limits provided in their beneficial use permit for fuel substitution. Emissions from Boiler #1 were tested while firing up to sixty (60%) percent CDWF by weight of the annual fuel use and daily feed rate, however at this time Solid Waste regulations limit annual CDWF use to 50% on an annual basis. For the purpose of this license, CDWF shall be chipped wood demolition debris with painted wood, chemically treated wood, and wood mixed with roofing and other non wood related demolition products which have been removed such that the fuel meets the requirements of the Bureau of Remediation and Waste Management, 06-096 CMR 418.

The operation and maintenance of a multiple centrifugal cyclone separator followed by a three field electrostatic precipitator (ESP) controls particulate emissions from Boiler #1. BLF will operate, at a minimum, the number of ESP fields that operated during the most recent demonstration of compliance with its licensed particulate emission limits. While burning CDWF, with the exception of startup, shutdown, and malfunction, BLF shall operate the 3-field ESP with all fields energized.

Amendment A-555-70-H-A was signed on May 10, 2005, allowing BLF to utilize an ecotube system to improve combustion in the boiler which consists of four liquid cooled, automatically retractable tubes (Ecotubes). These tubes are inserted into the boiler through openings in the walls. High pressure ambient air is added through the Ecotubes with using adjustable nozzles in order to improve the mixing of the combustion gases and the air. The result is an efficient combustion process with overall reduced emissions. In addition, thermal efficiency is also increased which results in lower fuel consumption. A 30% liquid urea reagent or 19% aqueous ammonia (NH₃) reagent can also be introduced into the Ecotube System to enhance NO_x reduction. BLF also utilizes Selective Non-Catalytic Reduction (SNCR) with urea injection as well as an ecotube system to reduce NO_x emissions from Boiler #1. Also, Amendment A-555-70-H-A licensed the installation of a #2 fuel oil-fired 105 MMBtu/hr auxiliary burner to stabilize combustion during periods of instability. However, this oil burner was not installed and the 18-month period to commence construction has expired. All references to the installation and emission limits for this unit have been removed in this air emissions license renewal.

Based on an emission factor of 0.132 pound of hydrochloric acid (HCl) per ton of wood (4500 Btu/pound), BLF has the potential to emit 35.1 tons of HCl per year; above the 10 tons of Hazardous Air Pollutant (HAP) per year to be a major source of HAPs. As such, Boiler #1 was subject to the requirements of 40 CFR Part 63, Subpart DDDDD-National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (the "Boiler MACT"). However, on June 8, 2007 the District of Columbia Court of Appeals issued a decision, *Natural Resources Defense Council vs. EPA*, vacating the Boiler MACT and thus BLF will comply with BACT and will subsequently comply with this subpart in the timeframes specified upon final approval.

BPT for Regulated Pollutants

The following summarizes BLF's submittal of an extensive BPT analysis in its March 2004 application and BACT analyses in subsequent NSR amendments.

PM and PM₁₀

BLF will meet Best Practical Treatment (BPT) for the control of particulate matter emissions by using a mechanical dust collector (cyclone) followed by an electrostatic precipitator (ESP). For opacity, BLF has a continuous opacity monitor. Also, visible emissions shall not exceed 20% (based on 6-minute averages) except for one 6-minute period per hour of not more than 27% opacity.

All potential sources of fugitive PM emissions, including all wood chip storage piles and unpaved roads and parking areas, are controlled with water and/or calcium chloride as necessary to prevent visible emissions. All ash handling is accomplished within the boiler building or covered conveyors. Ash from the precipitators, multicyclones, soot hoppers, and the grates is sufficiently wet at the point of discharge to prevent visible emissions. All ash transported to off site locations is transported in covered trucks or containers. The ash handling system meets the definition of BPT.

SO₂

BLF will meet BPT for the control of sulfur dioxide emissions by firing wood only, which inherently has a low sulfur content.

NO_x, CO, and VOC

For NO_x and CO, BLF shall use continuous emission monitoring systems to show compliance with applicable emission limits. BLF also utilizes Selective Non-Catalytic Reduction (SNCR) with urea injection as well as an ECOTUBE system to reduce NO_x emissions from Boiler #1. The ECOTUBE system can also help control CO by increasing the mixing of combustion air in the boiler as well. Primary and secondary air systems, O₂ feedback and control are methods to control CO emissions by providing the correct amount of combustion air at the correct location in the boiler. BPT for NO_x control at BLF is SNCR, good combustion control achieved through the use of primary and secondary air systems, O₂ feedback and control, and the ECOTUBE system. BLF utilizes all of these systems to ensure good combustion control, proper residence time, temperature, and turbulence as BPT for the control of NO_x, CO, and VOC emissions.

Streamlining

1. 40CFR Part 60.43b(c)(1), (f), (g) and 06-096 CMR 103 regulate particulate matter (PM) emission limits. However BACT, determined in A-555-72-A-N (9/5/1991), is more stringent.
2. 06-096 CMR 101 is applicable for visible emissions. However, BPT as established in A-555-72-A-N (9/5/1991) and 40 CFR Part 60.43b(f) are more stringent.
3. 40 CFR Part 60 and 06-096 CMR 117 require the use of Continuous Opacity Monitoring System (COMS). However, 06-096 CMR 117 is at least as stringent as 40 CFR Part 60. Reference A-555-72-A-N (9/5/1991).
4. 40 CFR Part 60.13 and 06-096 CMR 117 detail the sampling frequency of the CEMS and COM. However, 06-096 CMR 117 is at least as stringent as 40 CFR Part 60. Reference A-555-72-A-N (9/5/1991).
5. 40 CFR 60.11(d) has been streamlined into Standard Condition #5. Reference A-555-70-A-I (9/8/1999).
6. 40 CFR 60.11 (g) has been streamlined into Standard Statement #5. Reference A-555-70-A-I (9/8/1999).

40 CFR Part 64 – Compliance Assurance Monitoring (CAM) applicability

CAM applies to emission units located at a major source required to obtain a Part 70 permit in which the emissions unit is subject to an emission limitation, utilizes a control device to achieve that limitation and has precontrol emissions which are greater than the major source threshold for the controlled pollutant. Boiler #1 utilizes a multicyclone followed by a 3-field electrostatic precipitator (ESP) to control PM emissions and utilizes SNCR as well as the ecotube system to control NO_x emissions. In each of these cases, Boiler #1 has the potential to emit greater than 100 tons per year each of PM and NO_x prior to the control equipment. As such, CAM applies to PM and NO_x from Boiler #1. The use of a NO_x Continuous Emissions Monitoring System (CEMS) satisfies the requirements of CAM for NO_x monitoring. When a pollutant subject to CAM is also subject to a MACT requirement, the MACT requirement supersedes CAM. Due to the vacature of the Boiler MACT, CAM for PM will be the following requirements.

PM CAM:

A multiple centrifugal cyclone and an electrostatic precipitator (ESP) control the PM emissions from BLF's biomass boiler. There is no continuous monitoring of PM emissions, thus the CAM rule is applicable to the PM emissions from the boiler. The boiler is stack tested to demonstrate compliance with the licensed allowed PM emission limit of 0.02 lb/MMBtu once every two years. Stack testing conducted since the initial Part 70 air license was issued indicates that the unit's

PM emission rate during normal operation and soot blows average below 0.01 lb/MMBtu.

BLF's boiler is equipped with a continuous opacity monitor system (COMS) for continuous compliance with the opacity limit (20% over a six minute average, except for one six minute period per hour of not more that 27%). The COMS meets the criteria in 40 CFR Part 60, Appendix B, Performance Specification 1 and is maintained and operated in compliance with 06-096 CMR 117, which includes conducting quarterly audits and an annual 7-day length zero/upscale drift test.

The opacity from a fuel burning device is an indicator of PM control device performance. The use of a COMS represents presumptively acceptable monitoring for PM limits. A facility using a COMS satisfies the requirements of 40 CFR 64.3, provided that the COMS may be subject to establishing an indicator range, which may be based on a single maximum value.

BLF will continuously monitor the opacity from the boiler and will use an indicator set point of 9% opacity at which level an inspection of the particulate control parameters will be initiated which provides reasonable assurance of compliance with PM emission limits contained in BLF's air license. Specifically, when an opacity reading of 9% for ten consecutive six-minute block average periods is reached, BLF will immediately check the following parameters:

- Multiple centrifugal cyclone gas pressure drop and inlet and outlet gas temperatures.
- ESP primary and secondary voltages on each field, primary and secondary current on each field, spark rate indicators, gas pressure drop, inlet and outlet gas temperatures, along with power level and ESP alarms.

For periodic monitoring for the performance of the boilers' PM control devices, BLF records the following electronically via the Distributed Control System (DCS), and the Micro-Rap System with associated Precipitator Optimization Software (POS) for ESP control.

Periodic Monitoring PM Control Devices

MONITORED PARAMETER	FREQUENCY
Multicyclone Inlet Temp (°F)	Hourly during normal operations
Multicyclone Outlet Temp (°F)	Hourly during normal operations
Multicyclone Differential Pressure	Hourly during normal operations
ESP Inlet Temp (°F)	Hourly during normal operations
ESP Outlet Temp (°F)	Hourly during normal operations
ESP Differential Pressure	Hourly during normal operations
ESP TR Primary Amps	Hourly during normal operations

ESP TR Primary Volts	Hourly during normal operations
ESP TR Secondary Amps	Hourly during normal operations
ESP TR Secondary KV	Hourly during normal operations
ESP Sparks per Minute (average)	Hourly during normal operations
ESP KW Consumption	Hourly during normal operations
ESP Alarms	Hourly during normal operations
DCS - Total Boiler Air Flow (Klbs/hour)	Hourly during normal operations
DCS – Steam Temp	Hourly during normal operations
DCS – Steam Flow	Hourly during normal operations
DCS – Steam Pressure	Hourly during normal operations
DCS – Stack Oxygen (average)	Hourly during normal operations

If the periodic monitoring of the particulate matter control device parameters are outside of the acceptable operating range, corrective action will be initiated that will begin with an evaluation of the occurrence to determine the action required to correct the situation. All excursions beyond the opacity limit or PM control device periodic monitoring parameters will be documented and reported to MEDEP.

Periodic Monitoring

Stack testing for particulate matter emission rates once every even numbered year, unless otherwise directed by the Department.

Periodic monitoring for particulate matter emissions shall be the following, taken once per shift:

1. Multiple centrifugal cyclone pressure drop and inlet and outlet gas temperatures.
2. ESP spark rate indicators, gas pressure drop and inlet and outlet gas temperatures.

Documentation that all CEMs are continuously accurate, reliable and operated in accordance with 06-096 CMR 117, 40 CFR Part 51 Appendix P, and 40CFR Part 60 Appendices B and F.

VOC monitoring will consist of a stack test during the term of this license to determine primary compliance. Demonstrated NOx, CO, and opacity limits through CEM/COM data provides reasonable assurance the VOC emissions are being met.

O₂ Spikes

BLF has requested to establish allowances for excursions of opacity and gaseous emissions from Boiler #1 during periods of start-up, shutdown and periodic maintenance, pursuant to 38 M.R.S.A. §349(9)(A) and §590(5). Data gathered during these times have frequent O₂ spikes that make emission calculations inappropriate. The Department will allow BLF to make CEMS monitoring calculation corrections

during periods of high O₂. Data from periods of high O₂ (greater than 16% O₂) in the stack gas compromise the CEMS ability to appropriately account for CO and NO_x 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.

Accordingly, MEDEP has determined that data obtained during periods of startup, shutdown, and periodic maintenance may not be included in determining compliance with short term and/or rolling average gaseous and/or opacity emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions.

Cold Start-up

For the purposes of the requested cold start-up exemption period, cold start-up shall be defined as the following:

- the boiler has not combusted fuel or produced measurable steam pressure for at least four hours;
- the steam temperature is raised at a controlled rate to 800°F or the 8-hour period, which ever is the lesser time for the two.

For the purposes of the requested exemption period, the beginning of cold start-up shall be defined as that time when the initial fire is in the boiler (first-fire). Upon initiating the fire in Boiler #1, the 8-hour period shall begin and shall continue unless the fire is removed from the boiler, the boiler does not combust fuel for at least four hours, or the steam pressure is reduced to 0 psig. If during any 8-hour startup period, BLF experiences periods of time that are determined by the Department to be unavoidable malfunctions pursuant to 38 M.R.S.A., Section 349, Subsection 9, those periods of time shall not be counted as part of the 8-hour period.

C. Diesel Generator

The diesel generator has a maximum design heat input capacity of 3.7 MMBtu/hr firing diesel fuel with a maximum sulfur content of 0.05% by weight. This unit is not subject to NSPS requirements.

Streamlining

1. 06-096 CMR 106 regulates fuel sulfur content, however the BPT sulfur limit is more stringent. Reference BPT in A-555-70-A-I (9/8/1999).
2. 06-096 CMR 101 is applicable for visible emissions; however the BPT opacity limit is more stringent. Reference BPT in A-555-70-A-I (9/8/1999).

Periodic Monitoring

Fuel oil record keeping which includes records of hours of operation and fuel use through purchase receipts indicating the amount (gallons) and percent sulfur by weight.

Based on the type and amount of fuel for which the diesel was designed, a properly maintained and operated diesel unit should not exceed opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing in accordance with 40 CFR Part 60, Appendix A, Method 9 is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

D. Miscellaneous Emissions Unit

The miscellaneous emission unit is a 1.43 MMBtu/hr diesel fire pump.

Streamlining

1. 06-096 CMR 106 regulates fuel sulfur content; however the BPT sulfur limit is more stringent. Reference BPT in A-555-70-A-I (9/8/1999).
2. 06-096 CMR 101 is applicable for visible emissions; however the BPT opacity limit is more stringent. Reference BPT in A-555-70-A-I (9/8/1999)

Periodic Monitoring

Periodic monitoring shall consist of record keeping which includes records of fuel use through purchase receipts indicating amount (gallons) and percent sulfur by weight (documented through supplier fuel receipts) for the diesel fire pump.

Based on the type and amount of fuel for which the diesel was designed, a properly maintained and operated diesel unit should not exceed opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing in accordance with 40 CFR Part 60, Appendix A, Method 9 is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

E. General Process Sources

General process particulate matter sources at BLF include wood chip conveyors, transfer points and a portable wood chipper, which may or may not be on site. Any conveyor totally within a building shall be considered enclosed.

Periodic Monitoring

Based on best management practices, general process emission sources should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emissions is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

F. Fugitive Emissions

Fugitive particulate matter sources at BLF includes material stockpiles and roadways.

Periodic Monitoring

Based on best management practices, fugitive emission sources should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emissions is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

G. Facility Emissions

The following total licensed annual emissions for the facility are based on the following raw materials used. All usages are based on a 12 month rolling total.

- Boiler #1 wood use of 520,000 tons per year (4,500 Btu/lb, 50% moisture).
- Boiler #1 knots and screenings use of 10,000 tons per year (4,500 Btu/lb, 50% moisture).
- 5,000 gallons per year of on-site generated waste oil in Boiler #1 (0.7 % sulfur by weight).
- Diesel Generator fuel use of 13,500 gallons per year of diesel fuel (0.05% sulfur by weight).
- Diesel Fire pump fuel use of 5,800 gallons per year of diesel fuel (0.05% sulfur by weight).

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

Pollutant	Boiler (wood)	Boiler (spec. oil)	Generator	Fire Pump	Total TPY
PM	46.80	0.04	0.11	0.12	47.1
PM ₁₀	46.80	0.04	0.11	0.12	47.1
SO ₂	62.76	0.39	0.05	0.02	63.2
NO _x	351.00	0.16	4.08	1.75	357.0
CO	2437.9	0.01	0.88	0.38	2439.2
VOC	52.6	0.01	0.32	0.14	53.1
NH ₃	69.2	--	--	--	69.2
Lead	0.51	--	--	--	0.51
HCl	35.1	0.0	0.0	0.0	35.1

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

The Department hereby grants the Part 70 License A-555-70-G-R pursuant to MEDEP 06-096 CMR 140 and the preconstruction permitting requirements of MEDEP 06-096 CMR 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to BLF pursuant to the Department's preconstruction permitting requirements in 06-096 CMRs 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact contained in 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 in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

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

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD 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; [MEDEP 06-096 CMR 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [MEDEP 06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [MEDEP 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; [MEDEP 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. [MEDEP 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 effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the applicant.

SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
Boiler 1	40 CFR Part 60.44b(c)	There is no NSPS NO _x 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.
Diesel Generator	40 CFR Part 64	Compliance Assurance Monitoring	Not applicable, unit does not utilize pollution control equipment.
Diesel Fire Pump	06-096 CMR 103, Section 2(B)(4)(c)	Particulate emission limit for fuel burning equipment > 3.0 MMBtu/hr.	Not applicable, unit is < 3.0 MMBtu/hr.
Diesel Fire Pump	40 CFR Part 64	Compliance Assurance Monitoring	Not applicable, unit does not utilize pollution control equipment.

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 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.
[MEDEP 06-096 CMR 140]
- (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.
[MEDEP 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 (Title 38 MRSA §347-C);
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 CMR 140; [MEDEP 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; [MEDEP 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 Title 38 MRSA §353.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; [MEDEP 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; [MEDEP 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. [MEDEP 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.
[MEDEP 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.

[MEDEP 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 MRS § 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.

[MEDEP 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. [MEDEP 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. [MEDEP 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;
- [MEDEP 06-096 CMR 140]

SPECIFIC CONDITIONS

- (14) Boiler #1
- A. Boiler #1 shall not exceed a heat input rate of 585.9 MMBtu/hr from wood firing on a 24 hour block average basis demonstrated by a steam production limit of 367,400 lb/hr. [A-555-72-D-R (1/17/1996), BPT]
 - B. Boiler #1 is permitted to fire biomass (which includes wood chips and other plant derived fuel), RWF, CDWF and oil. Emissions from Boiler #1 shall not exceed the following limits:

Pollutant	lb/MMBtu	lb/hr	Timeframe & Averaging Period	Origin and Authority
PM	0.02	11.7	At all times during plant operation.	A-555-70-A-I (9/8/1999)
NO _x	0.15	87.9	At all times during plant operation, based on a 24-hour block average.	A-555-77-1-A (3/10/2008) 06-096 CMR 140, BPT
NO _x	0.125	73.1	Under low load conditions (less than 20 MW net). Ecotubes are placed in at 20 MW net.	06-096 CMR 140, BPT

NO _x	0.10	58.3	At all times the facility is generating power for distribution and sale as renewable energy in the New England renewable energy market, based on a 24-hour block average.	A-555-77-1-A (3/10/2008) 06-096 CMR 115, BPT
NO _x	0.075	43.8	At all times the facility is generating energy for distribution and sale as renewable energy in the New England renewable energy market, based on a quarterly average.	A-555-77-1-A (3/10/2008) 06-096 CMR 115, BPT
CO	0.95	556.6	At all times during plant operation, based on a 24-hour block average.	A-555-77-1-A (3/10/2008) 06-096 CMR 115, BPT

NO_x: The lb/MMBtu NO_x limits are based on 24-hour daily block averages, via CEM. A 24-hour block average basis shall be defined as midnight to midnight. BLF shall maintain the NO_x CEM in accordance with 06-096 CMR 117. The CEM shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F.
[A-555-72-A-N (9/5/1991), BPT]

CO: The 0.95 lb/MMBtu limit is based on a 24- hour block average basis via CEM. BLF shall maintain the CO CEM in accordance with 06-096 CMR 117. A 24 hour block average basis shall be defined as midnight to midnight. The CEMS shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F. The Department will reevaluate the CO limit in 2010, which is two years of data collection after A-555-77-1-A license issuance.

Data from periods of high O₂ (greater than 16% O₂) in the stack gas compromise the CEMS ability to appropriately account for CO and NO_x 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.

During startup and shutdown periods when Boiler #1 steam temperature is below 800°F, the lb/MMBtu values monitored shall not be included in determining the 24-hour block arithmetic average CO and NO_x lb/MMBtu emission rates and 6-minute block average Opacity (%). The maximum amount of time the monitored lb/MMBtu emission rates shall not be included in the 24 hour block average emission rate or % Opacity shall not exceed an 8 hour block period. Boiler #1 steam temperature shall be demonstrated by a continuous monitor and recorder.
[A-555-72-D-R (1/17/1996), BPT]

C. Cold Start-up

For the purposes of the requested cold start-up exemption period, cold start-up shall be defined as the following:

- the boiler has not combusted fuel or produced measurable steam pressure for at least four hours;

- the steam temperature is raised at a controlled rate to 800°F or the 8-hour period, which ever is the lesser time for the two.

For the purposes of the requested exemption period, the beginning of cold start-up shall be defined as that time when the initial fire is in the boiler (first-fire). Upon initiating the fire in Boiler #1, the 8-hour period shall begin and shall continue unless the fire is removed from the boiler, the boiler does not combust fuel for at least four hours, or the steam pressure is reduced to 0 psig. If during any 8-hour startup period, BLF experiences periods of time that are determined by the Department to be unavoidable malfunctions pursuant to 38 M.R.S.A., Section 349, Subsection 9, those periods of time shall not be counted as part of the 8-hour period.

[38 M.R.S.A., Section 349, Subsection 9 & 06-096 CMR 140, BPT]

D. BLF shall collect the necessary information to demonstrate that the period of time during which emissions are above the lb/MMBtu and/or % limits has occurred due to a cold start-up. All necessary information will be provided to the Department to demonstrate that Boiler #1, pursuant to 40 CFR Part 60.11 (d), has been operated safely and in a manner consistent with good air pollution control practices to minimize air pollution during the cold start-up period. [40 CFR Part 60 & 06-096 CMR 140, BPT]

E. Good Air Pollution Control Practice

For the purposes of this cold start-up, good air pollution control practice shall include, but not be limited to the following:

1. Adhering to the manufacturer's suggested standard operating procedure when lighting off the boiler from a cold condition;
2. Inspection, before light-off, of the mechanical dust collector (Multiclone) system flues, hopper dust valves and hopper inlet and outlet tubes to ensure that the equipment is free of foreign matter and testing of the dust valves prior to light-off to ensure their proper function;
3. Proper operation of the mechanical dust collector system, which shall include hourly inspection of the system hopper dust valves during cold start-up to ensure the valves are free of foreign matter and operate freely;
4. Inspection, before light-off, of the ESP and ESP dust collection system equipment to ensure that the equipment is free of foreign matter and testing of the ESP hopper dust valves and dust distribution conveyor belts prior to light-off to ensure their proper function;
5. Proper operation of the ESP, which shall include hourly inspection of the system hopper dust valves and dust distribution conveyor belts during cold start-up to ensure the valves and belts are free of foreign matter and operate freely;
6. Inspection, before light-off, of the boiler biomass fuel feeders to ensure that the feeders are free from obstruction and are able to operate in a manner that proper grate distribution can be achieved.

7. Proper operation of the biomass feeder system to ensure that the system is achieving proper grate distribution to ensure efficient and complete combustion.
8. Maintain an inspection log documenting compliance with 1- 8 above.

[06-096 CMR 140, BPT]

- F. Boiler #1 shall operate in accordance with 40 CFR Part 60.11 (d) during periods of cold start-up. BLF shall maintain a cold start-up record that shall include opacities that exceed 20% opacity on a six-minute block average basis. The record shall include the time from the beginning of the cold start-up at which one field of the ESP is energized to 10% and when the ESP is energized to operating levels. The record shall also include a record of the results of pre-light-off inspections of the mechanical dust collections system, the ESP, and the biomass feeder system. [40 CFR Part 60 & 06-096 CMR 140, BPT]
- G. BLF shall continuously monitor, record once every hour and include in the cold start-up record, the following surrogate parameter values during cold start-up:
- The surface metal temperature of the Boiler #1 steam drum;
 - The steam pressure;
 - The economizer inlet gas temperature;
 - The precipitator inlet and outlet gas temperatures;
 - The precipitator exit gas oxygen content via CEMS;
 - Primary and secondary voltages on each field of the ESP;
 - Primary and secondary currents on each field of the ESP;
 - Mechanical dust collection system hopper dust valve condition;
 - ESP hopper dust valve condition.

BLF shall submit a copy of the cold start-up record to the Department within its quarterly emission report. [40 CFR Part 60 & 06-096 CMR 140, BPT]

- H. Exemptions of emissions that do not qualify as emissions from cold startups shall be considered on a case by case basis by the Department pursuant to 38 M.R.S.A. §590-5. All emissions occurring during a malfunction shall be recorded and reported in accordance with 38 M.S.R.A. §349 et sec., and all other applicable laws.

[06-096 CMR 140, BPT] **Enforceable by State Only**

- I. Lb/hr emissions from Boiler 1 shall not exceed the following limits:

Pollutant	lb/hour	Origin and Authority	Enforceability
PM	11.7	A-555-70-A-I (9/8/1999), BPT	--
PM ₁₀	11.7	A-555-70-A-I (9/8/1999), BPT	--
SO ₂ *	10.2	A-555-70-E-M (5/27/2003), BPT	--

NO _x	87.9	A-555-70-A-I (9/8/1999), BPT	--
CO	556.6	A-555-77-1-A (3/10/2008), BPT	--
VOC	12.0	A-555-77-1-A (3/10/2008), BPT	--
NH ₃	15.8	A-555-70-H-A (5/10/2005), BPT	Enforceable by State Only
Lead	0.062	A-555-70-C-M (4/25/2001), BPT	Enforceable by State Only

* Note: SO₂ lb/hr limit is based on firing no more than 5.62 tons per hour of knots and screens.

PM, SO₂, VOC, NH₃, and Lead lb/hr limits will be demonstrated upon request by EPA approved stack test Methods. These emission limits apply at all times including Startup, Shutdown, and Malfunctions (SSM).

NO_x & CO lb/hr limits will be demonstrated upon request by EPA approved stack test Methods.

[06-096 CMR 140, BPT, A-555-70-A-I (9/8/1999), BPT]

- J. Emissions from Boiler #1 shall vent to Stack 1 which shall be at least 220 feet AGL and represent greater than 78.2% of the formula GEP stack height.
 [A-555-72-A-N (9/5/1991), BPT]
- K. Particulate matter (PM, PM₁₀) emissions from Boiler #1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP). [A-555-72-A-N (9/5/1991), BPT].
- L. Except during cold startup, while burning CDWF, the facility shall operate the 3-field ESP with all fields energized. BLF shall keep track of all field downtime and notify the Department within 48 hours if a field goes down for over 1 ½ hours.
 [A-555-70-G-R & A-555-70-I-A (6/12/2006), BPT]
- M. BLF shall ensure that the installed ESP is operated at all times to minimize emissions and to maximize operational efficiency. If at any time during plant operations, while combusting greater than 25% CDWF, a malfunction should result in loss of an ESP field or chamber, the facility must take immediate action to correct the failed field or chamber and return it to service within 24 hours unless provisions to combust only unadulterated wood fuel (whole tree chips, mill residues, etc...) have been executed as soon as possible. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, BLF may perform additional particulate emission testing while burning CDWF to demonstrate compliance with 2 of the 3 ESP fields energized, but under no circumstances shall BLF be relieved of its obligation to meet its licensed emission limits. While burning only unadulterated wood fuel BLF shall operate, at a minimum, the number of ESP chambers and number of fields per chamber that were operated during the most recent

demonstration of compliance with the licensed particulate emission limits. [A-555-70-I-A (6/12/2006), BPT]

- N. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, BLF may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall BLF be relieved of its obligation to meet its licensed emission limits. [A-555-70-I-A (6/12/2006), BPT]
- O. Particulate matter (PM, PM₁₀) emissions from Boiler #1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone followed by an electrostatic precipitator (ESP). BFL shall record the following data for the multiple centrifugal cyclone, which shall be taken once per shift during operation:
- 1) Gas pressure drop
 - 2) Inlet and outlet gas temperature
- [A-555-72-A-N (9/5/1991), BPT]
- Data for the following points regarding the ESP operation shall, at a minimum, be recorded once per shift during operation:
- 1) Spark rate indicators
 - 2) Gas pressure drop
 - 3) Inlet and outlet gas temperature
- [A-555-72-A-N (9/5/1991), BPT]
- P. To meet its emission limits, BLF shall operate SNCR with urea injection equipped with a urea mixture flow rate monitor (periodic monitor). The data shall be recorded once per shift during operation. [A-555-72-A-N (9/5/1991), BPT]
- Q. Except during periods of start-up, shutdown, and unavoidable malfunction, BLF shall operate Boiler #1 such that the opacity does not exceed 20% over a six minute average except for one six minute period per hour of not more than 27%, subject to the provisions of Title 38 MRSA §349. Compliance with the opacity limit shall be demonstrated by means of a continuous opacity monitoring system (COMS). The COMS in the stack shall be installed, certified, and maintained in accordance with 06-096 CMR 117.
[40 CFR Part 60 & A-555-72-A-N (9/5/1991), BPT]
- R. BLF shall conduct particulate matter (PM) emission and Ammonia (NH₃) slip testing, and demonstrate compliance, once every even number year on Boiler #1, unless otherwise directed by the Department.
[A-555-70-A-I (9/8/1999), BPT]
- S. Ammonia (NH₃) slip shall not exceed 40 ppm_{dv} on a dry basis on a one (1) hour average (corrected to 12% CO₂).
[A-555-72-A-N (9/5/1991), BPT]

- T. Boiler #1 is subject to 40 CFR Part 60 Subparts A and Db and BLF shall comply with the notification and record keeping requirements of 40 CFR Part 60.7, which includes maintaining monthly fuel use records and determining an annual capacity factor on a 12 month rolling average basis.
[40 CFR Part 60 Subparts A and Db]
- U. BLF shall limit the annual fuel usage and quarterly feed rate (based on purchase records which specify the type and quantity of RWF and CDWF) into Boiler #1 to:
- 1) Up to ten (10%) percent by weight of the annual fuel use may be RWF, which for the purpose of this license shall consist of chipped utility poles, railroad ties, and other similar chemically treated wood products.
[A-555-72-D-R (1/17/1996), BPT]
 - 2) Up to fifty (50%) percent by weight of the annual fuel use may be CDWF, which for the purpose of this license shall be chipped wood obtained from demolition material where painted wood, chemically treated wood, and wood mixed with roofing and other non wood related demolition products is removed such that the requirements of the Solid Waste Division Schedule of Compliance dated 5/4/2004 for Boralex Livermore Falls are met.
[A-555-70-C-M (4/25/2001), BPT]
 - 3) Processed pallet material has been determined to be part of the whole tree chip mix and shall not be considered part of the CDWF wood mix.
[A-555-70-F-A (1/20/2004), BPT]
- V. BLF may burn no more than 5,000 gallons per year of waste oil (0.7% by weight sulfur content) in Boiler #1 based on a 12-month rolling total. Only waste oil meeting the criteria "specification" or "off-specification" waste oil (as defined in the "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-555-72-D-R (1/17/1996), BPT]
- W. Ash from Boiler #1 grate, mud-drum, and fly-ash shall be disposed of in accordance with the Bureau of Remediation and Waste Management (BRWM). Ash shall be sufficiently conditioned with water or transported in covered containers so as to prevent fugitive emissions.
[A-555-72-A-N (9/5/1991), BPT] **Enforceable by State Only**
- X. Should wind action or handling of reclamation of wood chips result in visible emissions in excess of 5% opacity, the chips shall be controlled to eliminate visible emissions in excess of 5% opacity on a six (6) minute average.
[A-555-70-A-I (9/8/1999), BPT] **Enforceable by State Only**

Y. BLF shall limit Boiler #1 hourly feed rate of knots and screenings to 5.62 tons per hour. Compliance is based on recording the tons of knots and screenings mixed into the fuel blend on an hourly basis. BLF shall burn no more than 10,000 tons of knots and screenings in Boiler #1 on a 12 month rolling total (based on purchase/shipping records which quantify the quantity of knots and screenings delivered). [A-555-70-B-A (4/25/2001), BPT] **Enforceable by State Only**

Z. BLF may operate an Ecotube System to assist the facility's boiler to meet the NOx emissions limits set in this air emissions license.
[A-555-70-H-A (5/10/2005), BPT]

(15) Diesel Generator (Diesel #3)

A. Emissions from Diesel #3 shall not exceed the following limits:
[A-555-70-A-I (9/8/1999), BPT]

Pollutant	lb/MMBtu	lb/hr
PM	0.12	0.44
PM ₁₀	n/a	0.44
SO ₂	n/a	0.19
NO _x	n/a	16.32
CO	n/a	3.52
VOC	n/a	1.30

B. The sulfur content of the diesel fuel used in Diesel #3 shall not exceed 0.05% sulfur by weight. Fuel oil logs shall be kept which includes records of hours of operation and fuel use through purchase receipts indicating gallons and percent sulfur by weight. [A-555-70-A-I (9/8/1999), BPT]

C. Diesel #3 shall not operate more than 500 hours or fire more than 13,500 gallons per year of diesel fuel. Hours of operation and fuel use records for Diesel #3 shall be kept through purchase receipts indicating gallons and percent sulfur by weight. [A-555-70-A-I (9/8/1999), BPT]

D. Visible emissions shall not exceed an opacity of 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period. [A-555-72-A-N (9/5/1991), BACT]

E. Emissions from Diesel #3 shall vent to a Stack #2 which shall be at least 45 feet AGL. [A-555-70-A-I (9/8/1999), BPT]

(16) A log for Boiler 1 and Diesel #3 shall be maintained showing preventative maintenance actions being performed. [A-555-70-A-I (9/8/1999), BPT]
Enforceable by State Only

- (17) **Diesel Fire Pump** [A-555-70-A-I (9/8/1999), BPT]
- A. The diesel fire pump shall be limited to 500 hours. Hours of operation shall be kept by means on a log.
 - B. The diesel fire pump shall use no more than 5,200 gallons per year of 0.05% sulfur (documented through supplier fuel records) diesel fuel, based on a 12 month rolling total.
 - C. Visible emissions from the diesel fire pump shall not exceed an opacity of 20 percent on a six (6) minute block average basis, for more than two (2) six (6) minute block averages in a 3-hour period.
- (18) **General Process Sources**
Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [A-555-70-A-I (9/8/1999), BPT]
- (19) **Fugitive Emissions**
Visible emissions from a fugitive emission sources (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [MEDEP 06-096 CMR 101]
- (20) **Recordkeeping Requirements**
- A. The following are identified as Periodic Monitors [MEDEP 06-096 CMR 140, BPT]:
 - Quantity of each fuel burned in Boiler #1 each month (wood, CDWF, RWF, knots and screens, waste oil).
 - Multiple centrifugal cyclone gas pressure drop.
 - Multiple centrifugal cyclone inlet and outlet gas temperature.
 - ESP spark rate indicator.
 - ESP gas pressure drop.
 - ESP inlet and outlet gas temperature.
 - SNCR urea mixture flow rate.
 - Boiler #1 PM stack testing results when performed.
 - Boiler #1 NH₃ slip stack testing results when performed.
 - Boiler #1 hourly feed rate of knots and screenings.
 - Quantities of specification and off-specification waste oil burned in Boiler #1.
 - Boiler #1 preventative maintenance actions being performed.
 - Diesel Generator and Fire Pump preventative maintenance actions being performed.
 - Diesel Generator and Fire Pump hours of operation.
 - Diesel Generator and Fire Pump fuel use.
 - Diesel Generator and Fire Pump fuel oil percent sulfur.

B. The following are identified as a parameter monitors for Boiler #1:

Parameter	Monitor	Record
steam temperature	continuously	continuously
total steam production *	continuously	continuously

* monitored with a differential pressure flow meter

BLF shall monitor and record steam flow rate and steam temperature continuously for Boiler #1. Note, "continuously" is defined as: 3 points in a one hour period, with no more than 2 points in any one half-hour period.

Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.
[06-096 CMR 140 & A-555-70-A-I (9/8/1999), BPT]

C. For all CEMS and COMS, the records shall include [MEDEP 06-096 CMR 140, BPT]:

1. Documentation that all CEMS and COMS are continuously accurate, reliable and operated in accordance with 06-096 CMR 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;
2. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P;
3. Upon the written request by the Department a report or other data indicative of compliance with the applicable emission standard for those periods when the CEMS or COMS were not in operation or produced invalid data. Methods allowed by 40 CFR Part 75 may be used to demonstrate compliance with applicable emission standards. Evidence indicating normal operations shall constitute such reports or other data indicative of compliance with applicable emission standards. In the event the Bureau of Air Quality does not concur with the licensee's compliance determination, the licensee shall, upon the Bureau of Air Quality's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard; and
4. A 24-hour block average basis shall be calculated as the arithmetic average of not more than 24 – one hour block periods. Only one 24-hour block average shall be calculated for one day, beginning at midnight. A valid 24-hour block

average must contain at least 18 hours during which operation occurred and valid CEM data produced. Hours in which no operation occur shall not be included in the 24-hr block average calculation.

(21) **Compliance Assurance Monitoring**

A. BLF shall operate the ESP and meet the following PM CAM for Boiler #1 [40 CFR Part 64]:

Indicator	
Indicator	Opacity
General Criteria	
Measurement Method	The opacity is measured using a Continuous Opacity Monitor that meets the requirements of 40 CFR, Part 60, Appendix B.
Indicator Range	An excursion is defined as opacity in excess of 9% for ten consecutive six minute block average periods. An excursion will require: an inspection of the ESP within 4 hours of documentation of an excursion, corrective action, and a reporting requirement.
Performance Criteria	
Data Representativeness	The opacity is monitored using a Spec 1 opacity monitor.
QA/QC	QA/QC procedures are set forth in 40 CFR, Part 60, Appendix B.
Monitoring Frequency	The opacity is measured continuously.
Data Collection Procedure	The opacity is recorded continuously.
Averaging Period	6 minute block average

- B. Any excursion shall be reported on semiannual reports. If excursions occur, BLF must also certify intermittent compliance with the emission limits for the control device monitored on their annual compliance certification. [40 CFR 64]
- C. BLF 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, BLF shall notify the Department and, if necessary, submit a proposed modification to this permit 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. BLF shall operate and monitor the ESP within the ranges established by the CAM plan received by the Department on March 8, 2005 and updated in November of 2008. Prior to making any changes to the approved CAM plan, BLF shall notify

the Department and, if necessary, submit a proposed modification to this permit 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]

- (22) **Quarterly Reporting** [40 CFR Part 60 & MEDEP 06-096 CMR 140, BPT]
The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment and CAM monitors required by this license.
- A. All control equipment downtimes and malfunctions;
 - B. All CEM, COM, parameter, and periodic monitor downtimes and malfunctions;
 - C. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
 1. Standard exceeded;
 2. Date, time, and duration of excess event;
 3. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent strip charts and printouts when requested;
 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.
 - D. A report certifying there were no excess emissions, if that is the case.
- (23) **Semiannual Reporting** [40 CFR Part 60 & MEDEP 06-096 CMR 140, BPT]
- A. The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due on **July 31st** and **January 31st** 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 Boiler #1 for each fuel.
 - 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.
- (24) **Annual Compliance Certification** [40 CFR Part 60 & MEDEP 06-096 CMR 140, BPT]
BLF shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due **January 31** of each year. 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 DEP 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.

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

In accordance with MEDEP 06-096 CMR 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

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

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

The emission statement must be submitted no later than July 1 or as otherwise specified in 06-096 CMR 137.

(26) **Air Toxics Emissions Statement** [MEDEP 06-096 CMR 137]

If BLF combusts more than 4,700 tons of wood during a HAP inventory year (50% moisture or equivalent), an Air Toxics Emission Statement is required.

The licensee shall report HAP emissions in accordance with MEDEP 06-096 CMR 137 no later than July 1, the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP 06-096 CMR 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

- (27) The license is subject to the State and Federal regulations listed below:

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

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

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

[40 CFR, Part 82, Subpart F]

(29) **Asbestos Abatement**

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

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

A. BLF shall submit a complete Part 70 renewal application at least 6 months prior, but no 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 renewal application of the Part 70 license. 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**

(31) **New Source Review**

BLF is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license and shall remain in effect even if this 06-096 CMR 140 Air Emissions License, A-555-70-G-R, expires.

Boralex-Livermore Falls, LP
Androscoggin County
Livermore Falls, Maine
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(32) **Certification by a Responsible Official**

All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official.

[40 CFR Part 60 & MEDEP 06-096 CMR 140]

DONE AND DATED IN AUGUSTA, MAINE THIS *15th* DAY OF *April* 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *James P. Brookfield*

DAVID P. LITTELL, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application March 8, 2004

Date of application acceptance May 24, 2004

Date filed with Board of Environmental Protection _____

This Order prepared by Edwin Cousins, Bureau of Air Quality

