



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Boralex Sherman LLC)
Penobscot County) **Departmental**
Sherman Station, Maine) **Findings of Fact and Order**
A-67-70-B-R) **Part 70 Air Emission License**

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 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Boralex Sherman LLC (Boralex Sherman)
LICENSE NUMBER	A-67-70-B-R
LICENSE TYPE	Part 70 License Renewal
NAIC CODES	4911 – Electrical Generation
NATURE OF BUSINESS	Electric Generating Station
FACILITY LOCATION	58 Sherman Lumber Company Road, Sherman Station, ME 04777
DATE OF LICENSE ISSUANCE	April 23, 2009
LICENSE EXPIRATION DATE	April 23, 2014

B. Emission Equipment

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

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	315 MMBtu/hr	Wood boiler

Boralex Sherman has additional insignificant activities which do not need to be listed in the emission equipment table above. The list of insignificant activities can be found in the Part 70 license renewal application, submitted in April 2005, and in Appendix B of 06-096 CMR 140 of the Department's Regulations.

C. Application Classification

The application for Boralex Sherman does not include the licensing of increased emissions or changes to recordkeeping/monitoring, therefore the license is considered to be a Part 70 License Renewal issued under 06-096 CMR 140 for a Part 70 source.

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II. EMISSION UNIT DESCRIPTION

A. Process Overview

Boralex Sherman is a wood-fired electric generating facility in Sherman Station, constructed in 1985 and began operation in 1986. The facility includes a 315 MMBtu/hr wood-fired boiler. The boiler system includes fuel metering bins, traveling stoker, induced draft, forced draft, and over-fire air fans, a mechanical dust collector (cyclone), and a 2-cell electrostatic precipitator (ESP). The fuel consists of wood chips, sawdust, bark, and other wood residue from logging and lumbering operations in the region. Boralex Sherman is also licensed to use alternative wood as a fuel, including railroad ties and telephone poles. The wood fuel is delivered to Boralex Sherman by truck and dumped into a hopper.

The wood fuel is transferred by conveyor to a scalper, a hog, and then to storage, either outside or in the covered fuel building. The fuel is then reclaimed and fed by conveyor to four metered boiler feeder bins which measure the amount of wood fuel conveyed to the boiler, using variable speed screws. Wood fuel is fed from 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 travelling grate surface while fine particles are rapidly burned in suspension. The boiler is sized and constructed to provide the time, temperature, and turbulence necessary to provide good combustion of wood fuel.

B. Emission Equipment

Boiler #1

Boralex Sherman's initial Part 70 Air Emission License A-67-70-A-I was issued October 16, 2000. Boralex Sherman is requesting a renewal of this Part 70 air license to authorize the operation of the following air emission units:

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type	Post Combustion Control Equipment	Stack #
Boiler #1	1985	315 20.4	Wood waste #1 & #2 fuel oil, ASTM	Cyclone, ESP	1
Boiler #2 *	1985	2.52	#2 fuel oil, ASTM	none	2

* Boiler #2 is considered insignificant in this Title V license renewal per 06-096 CMR 140 Appendix B section B (6). Boralex Sherman also operates several fuel burning units which have heat input capacities less than 1.0 MMBtu/hr, and are therefore noted for inventory purposes only.

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Boiler #1 is a wood fired 315 MMBtu/hr boiler, which powers a turbine capable of producing approximately 20 gross megawatts of power. Boiler #1 shall not exceed a heat input rate of 315 MMBtu/hr from wood firing on a 24 hour block average basis demonstrated by a steam production limit of 200,000 lbs/hr at 1324 psia measured at the throttle. Number 2 fuel oil is used for start-up, flame stabilization, and emergency back-up purposes only.

Boralex Sherman may use 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.
- Up to thirty (30%) percent by weight of the annual fuel use and daily feed rate may be CDWD, which meets the fuel specification in 06-096 CMR 418.
- Boralex Sherman must obtain approval from Maine DEP's Bureau of Remediation and Waste Management before combusting either RWF or CDWD in Boiler #1.

Boiler #1 is subject to New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Db, Standards of Performance for Industrial-Commercial Steam generating units proposed on June 19, 1984, promulgated on November 25, 1986, and affecting facilities constructed after June 19, 1984.

The operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP) controls particulate emissions from Boiler #1.

A continuous emissions monitoring system (CEMS) is used at Boralex Sherman to demonstrate compliance with NO_x emission rates. A continuous opacity monitor (COM) is used to demonstrate opacity requirements. An oxygen (O₂) CEM is used to measure diluent oxygen in Boiler #1 emissions.

Ancillary Equipment

A variety of ancillary equipment is located on site. These include a 2.52 MMBtu/hr oil-fired boiler for building heat (Boiler #2), a 0.47 MMBtu/hr diesel engine driven fire pump, and a 0.295 MMBtu/hr diesel engine driven generator. These units are considered insignificant per 06-096 CMR 140. A complete inventory of equipment, emission units, and vents is provided in Appendix B of the April 2005 application. Equipment and activities listed in Appendix B as insignificant activities are identified in accordance with Appendix B of 06-096 CMR 140.

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C. BPT for Regulated Pollutants

The following summarizes Boralex Sherman's submittal of an extensive BPT analysis in its April 2005 application.

PM and PM₁₀

Boralex Sherman will meet Best Practical Treatment (BPT) for the control of particulate matter emissions by using a mechanical dust collector (cyclone) followed by a 2 cell electrostatic precipitator (ESP). For opacity, Boralex Sherman 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

Boralex Sherman will meet BPT for the control of sulfur dioxide emissions by firing wood only, except for start-up, flame stabilization, and emergency back-up situations, when #1 and #2 fuel oil is burned. The fuel oil shall meet the criteria in ASTM D396 for #2 fuel oil.

NO_x, CO, and VOC

Boralex Sherman will maintain good combustion practices to ensure proper residence time, temperature, and turbulence as BPT for the control of NO_x, CO, and VOC emissions. For NO_x and CO, Boralex Sherman shall use continuous emission monitoring systems to show compliance with applicable emission limits.

Streamlining

- 40 CFR Part 60.43b(c)(1), (f), (g) and 06-096 CMR 103 regulate particulate matter (PM) emission limits. However, Best Practical Treatment (BPT) is more stringent.
- 06-096 CMR 101 is applicable for visible emissions. However, 40 CFR Part 60.43b(f) is more stringent.

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- 40 CFR Part 60 and 06-096 CMR 106 are applicable for fuel sulfur content. However, BPT fuel sulfur limit is more stringent.
- 40 CFR Part 60 and 06-096 CMR 117 require the use of Continuous Opacity Monitors (COM). However, 06-096 CMR 117 is at least as stringent at 40 CFR Part 60.
- 40 CFR Part 60.13 and 06-096 CMR 117 detail the sampling frequency of the CEM and COM. However, 06-096 CMR 117 is at least as stringent at 40 CFR Part 60.

D. Periodic Monitoring

1. *Particulate matter from main stack*

Stack testing is required for particulate matter emission rates once every even year. Periodic monitoring for particulate matter emissions shall be the following, taken once per shift:

- a. Mechanical dust collector (cyclone) gas pressure drop.
- b. ESP primary and secondary voltages on each field.

2. *General Process*

General process particulate matter sources at Boralex Sherman 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. The facility installed and temporarily operated a collector to collect fine wood particles or dust generated during the hogging process. The dust collector consist of a small pulse jet fabric filter and fan, the fine particulates captured by the fabric filter are collected in the fabric filter hopper and returned to the wood conveying system via a rotary valve, which discharges to a wood conveyor. The dust collector has not proven to be very effective and/or necessary and has not operated for many years, however, it is noted in this license. Boralex Sherman is subject to the visible emissions limit set in Condition (19) whether or not the dust collector is running.

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.

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3. *Fugitive Emissions*

Fugitive particulate matter sources at Boralex Sherman include material stockpiles and roadways.

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.

E. Continuous Monitoring

For NO_x and CO, Boralex Sherman shall use continuous emission monitoring systems to show compliance with applicable emission limits. Also, Boralex Sherman shall continue to use a continuous opacity monitor to demonstrate compliance with the applicable opacity limit. Demonstrated NO_x, CO and opacity limits through CEM/COM data provides reasonable assurance the VOC emissions are being met.

Boralex Sherman is required to provide documentation that all CEMs are continuously accurate, reliable, and operate in accordance with 06-096 CMR 117, 40 CFR Part 51 Appendix P, and 40 CFR Part 60 Appendices B and F.

F. Parameter Monitoring

Boralex Sherman shall monitor and record the following as specified for Boiler #1:

Parameter	Monitor	Record
fuel oil firing rate *	continuously	continuously
total steam production **	continuously	continuously

* monitored with a fuel flow totalizer or continuous fuel flow meter

** monitored with a differential pressure flow meter

G. Federal Regulations

National Emissions Standards for Hazardous Air Pollutants

Potential emissions of hydrochloric acid (HCl) are greater than the major source threshold of 10 tons per year for a single HAP. Therefore, Boiler #1 is potentially subject to 40 CFR Part 63, Subpart DDDDD. Boiler #1 is considered an existing large solid fuel-fired boiler (greater than 10 MMBtu/hr, wood-fired) by definition of the rule. The facility would have needed to be in compliance with the rule by September 13, 2007, however, the rule was recently vacated and therefore the

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compliance options are uncertain at this time. The facility has submitted the required initial notification to both the MEDEP and USEPA Region 1 on March 13, 2005. At such time the rule becomes final; Boralex Sherman will reevaluate its compliance options and meet the applicable requirements.

Compliance Assurance Monitoring

EPA's Compliance Assurance Monitoring (CAM) requirements are specified in 40 CFR Part 64. In accordance with 40 CFR 64.2, a unit is subject to CAM if the unit satisfies the following criteria:

- The unit has an emission limitation or standard for the applicable regulated air pollutant.
- The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source (100 tons per year).

PM CAM:

A multiple centrifugal cyclone and an electrostatic precipitator (ESP) control the PM emission from Boralex Sherman'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 0.036 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 is below this limit.

Boralex Sherman's boiler is equipped with a continuous opacity monitor (COMS) for continuous compliance with the opacity limit (20% over a six minute block average, except for one six minute period per hour of not more than 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.

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.

Boralex Sherman 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

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particulate control parameters will be initiated which provides a reasonable assurance of compliance with the PM emission limits contained in Boralex Sherman's air license. Specifically, when an opacity reading of 9% on ten consecutive six-minute block averages is reached, Boralex Sherman 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, and inlet and outlet gas temperatures.

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 the Department.

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 NO_x, CO, and opacity limits through CEM/COM data provides reasonable assurance the VOC emissions are being met.

H. O₂ Spikes

Boralex Sherman 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

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Department will allow Boralex Sherman 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.

I. 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, Boralex Sherman 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.

J. Good Air Pollution Control Practice

Good air pollution control practice shall include, but not be limited to, adhering to the manufacturer's suggested standard operating procedure when lighting off the boiler from a cold condition and recording the following in an operator's log:

1. 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;

2. 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;
3. 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 conveyors prior to light-off to ensure their proper function;
4. Proper operation of the ESP, which shall include hourly inspection of the system hopper dust valves and dust conveyors during cold start-up to ensure the valves and conveyors are free of foreign matter and operate freely;
5. Inspection, before light-off, of the boiler fuel oil burners to ensure the burner is operating with the proper tip and that the tip is clean and able to operate properly.
6. Inspection, before light-off, of the boiler biomass fuel feed system to ensure that the fuel feed system is free from obstruction and are able to operate in a manner that proper grate distribution can be achieved.
7. Proper operation of the biomass fuel feed system to ensure that the system is achieving proper grate distribution to ensure efficient and complete combustion.

To demonstrate that Boiler #1 has been operated in accordance with 40 CFR Part 60.11 (d) during periods of cold start-up, Boralex Sherman shall maintain a cold start-up record that shall include:

- opacities that exceed 20% opacity on a six-minute block average basis.
- time from the beginning of the cold start-up at which one field of the ESP is energized to 10% and
- time when the ESP is energized to operating levels.
- results of pre-light-off inspections of the mechanical dust collections system, the ESP, the fuel oil burners and the biomass feeder system.

Boralex shall continuously monitor and record once every hour and include in the cold start-up record, the following surrogate parameter values during cold start-up:

- a. The skin temperature of the Boiler #1 steam drum;
- b. The steam pressure;
- c. The furnace gas temperature;
- d. The precipitator gas temperature;
- e. The precipitator gas oxygen content;
- f. Primary and secondary voltages on each field of the ESP;
- g. Primary and secondary currents on each field of the ESP;
- h. Mechanical dust collection system hopper dust valve condition;
- i. ESP hopper dust valve condition;
- j. ESP dust conveyor condition.

Boralex Sherman shall submit a copy of the Cold start-up record to the Department within its quarterly emission report.

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K. Emission Standards

The Department has determined that the emission limits in the table below reflect the capability of the controls proposed as BPT for Boiler #1.

Pollutant	Emission limit (lb/MMBtu)	Averaging Period	Emission Limit (lb/hr)	Compliance Method	Boiler (TPY)
PM	0.036 lb/MMBtu	--	11.4	Stack test EPA Method 1-5	49.7
PM10	0.036 lb/MMBtu	--	11.4	Stack test	49.7
SO ₂	--	--	38.9 ^b (3-hr)	Stack test EPA Method 6 (c)	151.8
NO _x	0.25 lb/MMBtu	30 day rolling	--	CEMS	345.8
	0.30 lb/MMBtu ^a	24 hour block	--	CEMS	
	--	--	94.4 ^b (24-hr)	Stack test EPA Method 7 (e)	
CO	0.45 lb/MMBtu	30 day rolling	--	CEMS	620.8
	--	--	142.1 ^b (8-hr)	Stack test EPA Method 10	
VOC	--	--	9.45	EPA Method 25A	41.4
^a This emission limit is at least as stringent as the 06-096 CMR 138 NO _x RACT requirement.					
^b Compliance with the SO ₂ , NO _x , VOC and CO lb/hour emission limits shall be demonstrated by stack testing upon Department request. Should stack testing be required, the stack test will be conducted under normal boiler operating conditions. Operation during periods of startup, shutdown, and malfunctions shall not constitute normal operating conditions.					

Facility Emissions

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

- Boiler #1 shall not exceed a heat input rate of 315 MMBtu/hr from wood firing on a 24 hour block average basis demonstrated by a steam production limit of 200,000 lb/hour at 1325 psia measured at the throttle. (The criteria pollutant emission tonnage is calculated based on 318,300 tons per year of wood at 4335 Btu/lb)
- Boralex Sherman shall limit Boiler #1's use of #2 fuel oil to no more than 91,000 gallons/year.
- Boralex Sherman shall not burn more than 10,000 gallons per year of waste oil in Boiler #1.
- Miscellaneous insignificant fuel burning emissions included for fee purposes only.

Total Licensed Annual Emission for the Facility

(Tons/year)

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	49.7	49.7	151.8	345.8	620.8	41.4
Misc. small boilers, heaters, generators	1.3	1.3	5.6	3.3	3.3	1.1

Total TPY	51.0	51.0	157.4	349.1	624.1	42.5
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III. AIR QUALITY ANALYSIS

There have been no modifications to the facility, therefore the existing analysis performed for Boralex Sherman's 1999 06-096 CMR 115 Air Emission License, A-67-71-K-A/R, which demonstrated compliance with MAAQS and increments, is sufficient for this Part 70 license renewal.

ORDER

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

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

The Department hereby grants the Part 70 License renewal A-67-70-B-R pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 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 Boralex Sherman 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 MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license 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.

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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 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 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.

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The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in the application dated April 2005.

SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
Boiler #1	40 CFR Part 60, Subpart Dc	NSPS for Small Steam Generating Units	Boiler #1 has a heat input greater than 100 MMBtu/hr
Boiler #2	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.
Storage Tanks	06-096 CMR 111	Petroleum Liquid Storage Vapor Control	Boralex Sherman does not have any petroleum liquids stored in vessels with capacities greater than 39,000 gallons.

[06-096 CMR 140]

- (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.

[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. [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]
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- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §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; [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]

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- (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

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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]

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(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. Boiler #1 shall not exceed a heat input rate of 315 MMBtu/hr from wood firing on a 24 hour block average basis demonstrated by a steam production limit of 200,000 lbs/hr at 1325 psia measured at the throttle.
 [A-67-71-K-A/R (4/9/99), 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: [A-67-71-K-A/R (4/9/99), BPT]

Pollutant	Emission limit (lb/MMBtu)	Averaging Period	Emission Limit (lb/hr)	Compliance Method
PM	0.036 lb/MMBtu	--	11.4	Stack test EPA Method 1-5
PM10	0.036 lb/MMBtu	--	11.4	Stack test
SO ₂	--	--	38.9 ^b (3-hr)	Stack test EPA Method 6 (c)
NO _x	0.25 lb/MMBtu	30 day rolling	--	CEMS
	0.30 lb/MMBtu ^a	24 hour block	--	CEMS
	--	--	94.4 ^b (24-hr)	Stack test EPA Method 7 (e)
CO	0.45 lb/MMBtu	30 day rolling	--	CEMS
	--	--	142.1 ^b (8-hr)	Stack test EPA Method 10
VOC	--	--	9.45	EPA Method 25A
Lead	--	--	0.062	Stack test EPA Method

^a This emission limit meets the 06-096 CMR 138 NO_x RACT requirement.

^b Compliance with the SO₂, NO_x, VOC, and CO lb/hour emission limits shall be demonstrated by stack testing upon Department request. Should stack testing be required, the stack test will be conducted under normal boiler operating conditions. Operation during periods of startup, shutdown, and malfunctions shall not constitute normal operating conditions.

NO_x: The 0.30 lb/MMBtu NO_x emission limit is based on a 24-hour daily block average, via CEM. A 24-hour block average basis shall be defined as midnight to midnight. Boralex Sherman shall maintain the NO_x CEM in accordance with 06-096 CMR 117 and shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F. [06-096 CMR 117]

CO: The 0.45 lb/MMBtu CO emission limit is based on a 30-day rolling average basis via CEM. Boralex Sherman shall maintain the CO CEM in accordance with 06-096 CMR 117 and shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F. [06-096 CMR 117]

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. The maximum amount of time the monitored lb/MMBtu emission rates shall not be included in the 24 hour block average emission rate shall not exceed an 8 hour block period. Boiler #1 steam temperature shall be demonstrated by a continuous monitor and recorder. [06-096 CMR 140, 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, Boralex Sherman 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. Boralex Sherman 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

Good air pollution control practice shall include, but not be limited to, adhering to the manufacturer's suggested standard operating procedure when lighting off the boiler from a cold condition and recording the following in an operator's log:

1. 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;
2. 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;
3. 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 conveyors prior to light-off to ensure their proper function;
4. Proper operation of the ESP, which shall include hourly inspection of the system hopper dust valves and dust conveyors during cold start-up to ensure the valves and conveyors are free of foreign matter and operate freely;
5. Inspection, before light-off, of the boiler fuel oil burners to ensure the burner is operating with the proper tip and that the tip is clean and able to operate properly.
6. Inspection, before light-off, of the boiler biomass fuel feed system to ensure that the fuel feed system is free from obstruction and are able to operate in a manner that proper grate distribution can be achieved.
7. Proper operation of the biomass fuel feed system to ensure that the system is achieving proper grate distribution to ensure efficient and complete combustion.

- F. Boiler #1 shall operate in accordance with 40 CFR Part 60.11 (d) during periods of cold start-up. Boralex Sherman 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 cell 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, the biomass feeder system, and if installed the fuel oil burners. [06-096 CMR 140, BPT]

G. Boralex shall continuously monitor, record once every hour, and include in the cold start-up record, the following surrogate parameter values during cold start-up:

1. The surface metal temperature of the Boiler #1 steam drum;
2. The steam pressure;
3. The furnace gas temperature;
4. The precipitator gas temperature;
5. The precipitator gas oxygen content;
6. Primary and secondary voltages on each field of the ESP;
7. Primary and secondary currents on each field of the ESP;
8. Mechanical dust collection system hopper dust valve condition;
9. ESP hopper dust valve condition;
10. ESP dust conveyor condition.

Boralex Sherman 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	11.4	A-67-71-K-A/R (4/9/1999), BPT	--
PM ₁₀	11.4	A-67-71-K-A/R (4/9/1999), BPT	--
SO ₂	38.9	A-67-71-K-A/R (4/9/1999), BPT	--
NO _x	94.4	A-67-71-K-A/R (4/9/1999), BPT	--
CO	142.1	A-67-71-K-A/R (4/9/1999), BPT	--
VOC	9.45	A-67-71-K-A/R (4/9/1999), BPT	--
Lead	0.127	06-096 CMR 140, BPT	Enforceable by State Only

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-67-71-K-A/R (4/9/99), BPT]

- J. Emissions from Boiler #1 shall vent to Stack 1 which shall be at least 160 feet AGL and represent greater than 71% of the formula GEP stack height. [06-096 CMR 140, 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-67-71-K-A/R (4/9/99), BPT]
- L. Except during cold startup, while burning CDWF, the facility shall operate the 2-cell ESP with all fields energized. [06-096 CMR 140, BPT]
- M. Boralex Sherman 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 72 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, Boralex Sherman may perform additional particulate emission testing while burning CDWF to demonstrate compliance with 1 of the 2 ESP cells energized, but under no circumstances shall Boralex Sherman be relieved of its obligation to meet its licensed emission limits. While burning only unadulterated wood fuel Boralex Sherman shall operate, at a minimum, the number of ESP cells and number of fields per cell that were operated during the most recent demonstration of compliance with the licensed particulate emission limits. [06-096 CMR 140, BPT]
- N. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Boralex Sherman may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall Boralex Sherman be relieved of its obligation to meet its licensed emission limits. [A-67-70-B-R, 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). Boralex Sherman 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

Data for the following points regarding the ESP operation shall be recorded once per shift during operation:

- 1) Spark rate indicators
- 2) Gas pressure drop
- 3) Inlet and outlet gas temperature

[A-67-70-A-I (10/16/00) & 06-096 CMR 140, BPT]

- P. Except during periods of start-up, shutdown, and unavoidable malfunction, Boralex Sherman 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 limits shall be demonstrated on a six minute block average basis, by means of a COMS located as specified in 40 CFR Part 60, Appendix B, Specification 1. Boralex Sherman shall maintain the COM in accordance with 06-096 CMR 117.

[A-67-71-K-A/R (4/9/99), BPT]

- Q. Boralex Sherman shall conduct a particulate matter emission stack test once every even year, unless otherwise directed by the Department.

[06-096 CMR 140, BPT]

- R. Boiler #1 is subject to 40 CFR Part 60 Subparts A and Db and Boralex Sherman 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]

- S. Boralex Sherman 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.
- 2) Up to thirty (30%) percent by weight of the annual fuel use may be CDWD, which meets the requirements of 06-096 CMR 418.
- 3) Boralex Sherman shall obtain a Department solid waste license approving the storage and firing of CDWD prior to firing CDWD in Boiler #1.
- 4) Boralex Sherman may use wood waste residue from Flakeboard as part of their conventional wood fuel supply.

- T. The sulfur content of the #1 and #2 fuel oil fired in Boiler #1 shall not exceed the criteria in ASTM D396 for #2 fuel oil, demonstrated by purchase records from

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the supplier. Boralex Sherman shall limit Boiler #1's use of fuel oil to no more than 91,000 gallons/year on a 12 month rolling total basis.

[A-67-71-K-A/R (4/9/99), BPT]

U. Boralex Sherman may burn up to a maximum of 10,000 gallons per year of Specification or Off-Specification Waste Oil, as defined by the Bureau of Remediation and Waste Management (BRWM) of the Department, which is generated onsite. A log shall be kept recording the following for the waste oil burned in Boiler #1:

- A. Quantity and type (Specification or Off-Specification, etc.)
- B. Sulfur content

Note: The sulfur content shall be documented by purchase records from the supplier or by test results performed on a representative sample of onsite generated Specification or Off-Specification waste oil, both within the accuracy of the test methods used.

- C. The most recent test results performed on a representative sample
 - D. The waste oil shall be counted as part of the 91,000 gallons per year fuel oil limitation as specified in Condition 14 (T) of this license.
- These logs shall be made available to the Department upon request.

[Air Emission License A-67-71-K-A/R, 06-096 CMR 140, BPT]

V. Boralex Sherman shall limit on-site ash storage to the ash hut and the emergency ash storage pile. The ash stored at the emergency ash storage pile shall be limited to 30 days. At all times, except during maintenance and upset conditions, ash from the precipitators, multicyclones, and the grates, shall be sufficiently wetted at the point of discharge, so as to prevent the potential for visible emissions. All ash shall be transported to approved utilization sites or landfills. All ash transported to off-site locations shall be transported in covered trucks or containers.

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

W. Ash from Boiler #1 grate 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.

[06-096 CMR 140, 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.

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

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(15) 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. [06-096 CMR 101]

(16) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20 percent, 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 percent in any one (1) hour. [06-096 CMR 101]

(17) 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, oil, 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.
- Boiler #1 PM stack testing results when performed.
- Boiler #1 fuel oil percent sulfur.
- Quantities of specification and off-specification waste oil burned in Boiler #1.
- Boiler #1 preventative maintenance actions being performed.

B. The following are identified as a parameter monitors:

Boralex Sherman shall monitor and record the following as specified for Boiler #1:

Parameter	Monitor	Record
fuel oil firing rate *	continuously	continuously
steam temperature	continuously	continuously
total steam production **	continuously	continuously

* monitored with a fuel flow totalizer or continuous fuel flow meter

** monitored with a differential pressure flow meter

Boralex Sherman shall monitor and record oil firing rate and steam flow rate 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.
 [A-67-70-A-I (10/16/00), BPT & 06-096 CMR 117]

- 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.

(18) **Compliance Assurance Monitoring**

- A. Boralex Sherman 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 averages. 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, Boralex Sherman must also certify intermittent compliance with the emission limits for the control device monitored on their annual compliance certification. [40 CFR 64]
 - C. Boralex Sherman 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, Boralex Sherman 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)]
- (19) **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.
- (20) **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.
- (21) **Annual Compliance Certification** [40 CFR Part 60 & MEDEP 06-096 CMR 140, BPT]
- Boralex Sherman 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.
- (22) **Annual Emission Statement**
- In accordance with Emission Statements, 06-096 CMR 137 (last amended July 6, 2004), 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 06-096 CMR 137.

Reports and questions should be directed to:

Boralex Sherman LLC)
Penobscot County)
Sherman Station, Maine)
A-67-70-B-R 29

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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.

[06-096 CMR 137]

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

If Boralex Sherman 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 should be directed to:

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

(24) **General Applicable State Regulations**

The licensee is subject to the State 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, §§5	Mercury Emission Limit	Enforceable by State-only

(25) **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]

(26) **Asbestos Abatement**

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

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

A. Boralex Sherman 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**

(28) **New Source Review**

Boralex Sherman 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-67-70-B-R, expires.

Boralex Sherman LLC)
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Sherman Station, Maine)
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(29) **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 23rd DAY OF April 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *James P. Brooks Jr.*
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: April 15, 2005

Date of application acceptance: April 29, 2005

Date filed with the Board of Environmental Protection: _____

This Order prepared by Edwin Cousins, Bureau of Air Quality.

