



DEPARTMENT ORDER

**Katahdin Forest Products Co.  
Aroostook County  
Oakfield, Maine  
A-939-71-D-R/M**

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

**FINDINGS OF FACT**

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Katahdin Forest Products Co. (KFP) has applied to renew their Air Emission License for the operation of emission sources associated with their cedar log home manufacturing facility.

KFP has also requested a minor revision to remove the painting operations from their air license.

The equipment addressed in this license renewal is located at 205 Oakfield Smyrna Road in Oakfield, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Boilers**

<b><u>Equipment</u></b>	<b><u>Max. Capacity (MMBtu/hr)</u></b>	<b><u>Fuel Type</u></b>	<b><u>Maximum Firing Rate Tons/Hour</u></b>	<b><u>Date of Manuf.</u></b>	<b><u>Date of Install.</u></b>	<b><u>Control Equipment</u></b>
Boiler #1	14.2	Wood / Bark / Biomass	1.38 *	1991	2006	Multiclone

\* Firing rate is calculated based on wood at 43% moisture and with a higher heating value of 5,130 Btu per lb.

**Process Equipment**

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>
Dry Kiln	3.0 MMBF/Year	--
Bandsaw Mill – single surface planer	0.005 MMBF/Year	Cyclone
Picket Mill – 1x3 planer	1.5 MMBF/Year	Cyclone
Planer Mill	3.4 MMBF/Year	Cyclone

KFP also operates one solvent cleaner.

**C. Application Classification**

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for KFP does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

This minor revision removes from their air license the equipment previously associated with the paint operations at KFP. The equipment was removed from their facility in March of 2012. The removal of this equipment did not result in an increase of emissions of any pollutant or greenhouse gases (GHG). Therefore, this modification is determined to be a minor revision and has been processed as such.

KFP is licensed below the major source thresholds for criteria air pollutants (CAP) and is considered a minor source of CAP.

KFP is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

This minor revision removes the equipment previously associated with the paint operations at KFP from their air license. The equipment was removed from their facility in March of 2012. The removal of this equipment did not result in an increase of emissions of any pollutant or greenhouse gases (GHG). Therefore, this modification is determined to be a minor revision and has been processed as such.

## II. BEST PRACTICAL TREATMENT (BPT)

### A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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

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

### B. Process Description

KFP manufactures pre-cut log homes for delivery to sites across the United States and beyond. Log length cedar, pine and spruce are debarked, sawed to length, ripped to the appropriate cross section, and stockpiled for drying and further milling and machining. The sawmill trimmings are hogged and stockpiled. The logs in process are moved from station to station by forklift since many of the operations are conducted in separate buildings. The log cabin wall stock is typically cut from cedar, but occasionally pine is specified by the customer. The wall stock is milled for tongue and groove construction and then machined with the appropriate end lap in their automated house line, which is a state-of-the-art computer controlled facility. Other components of the log home package, such as cedar paneling, cedar decking and spruce roof purlins are also manufactured on-site. Outsourced items including windows, doors, insulation, and roofing materials are brought to the site to be packaged with the rest of the manufactured home components and then shipped to the builder as a completed kit.

The cedar remaining after the cabin stock is sawed is processed into cedar fencing and shipped to various dealers for resale. The smaller scraps of wood are utilized by Cedar Ideas, a separate company with common ownership and management located adjacent to the KFP site. Cedar Ideas uses the wood scraps to manufacture various specialty items including window boxes, planters, birdhouses and assorted novelty products. All remaining wood by-products, such as sawdust, bark and shavings are fired in the biomass boiler to generate heat for kiln drying and other energy needs.

C. Boiler #1

Boiler #1 is a wood-fired low pressure steam boiler with a rated maximum heat input capacity of 14.2 MMBtu/hr and a maximum firing rate of 1.38 tons per hour, based on combusting biomass fuel with an average moisture content of 43%. The boiler was manufactured by Superior Boiler in 1991. KFP purchased it used from another plant in 2005 and installed it at their own facility in 2006. The boiler exhaust gases are directed into a Zurn / Clarage multiclone, where particulate matter is removed. Gas exiting the multiclone is exhausted to atmosphere via a dedicated stack that has an inside diameter of 1.83 feet and a height of 76 feet above ground level.

The boiler burns biomass fuel consisting of cedar trimmings produced from the operation of the site's two sawmills. This secondary fuel is a combination of hogged slabs mixed with bark and sawdust. The remaining secondary fuel comes from the other various mill operations and is a mixture of shavings, chips, sawdust and bark. This fuel is estimated to be a 50/50 blend of air dried and kiln dried materials. KFP's average fuel moisture content is an estimated 43%, based on tests performed between June 2004 and March 2005.

KFP will occasionally fire sawdust and shavings in Boiler #1 that were used to absorb oil spills as they occurred at the facility. KFP shall mix this oil-infused wood fuel with uncontaminated sawdust and shavings prior to combusting this fuel in the boiler. KFP shall keep records of all oil-infused wood fuel that they burn in the boiler, documenting the on-site origin of the oil, the estimated volume of oil absorbed in the wood material, and the date that it was burned in the boiler.

KFP has requested an annual fuel limit of 6,000 tons per year of wet (43% moisture) fuel. This limit was proposed by KFP to keep their licensed air emissions below the minimum reporting requirements of 06-096 C.M.R. ch. 137, *Emission Statements*. The Department approves of this limit and has processed the air license accordingly. Fuel usage will be measured by monitoring a rotating feed valve which delivers 0.235 lb per dump. Records of fuel usage shall be kept on a daily or monthly basis, as well as on a calendar year basis.

1. BPT Findings

The BPT emission limits for the biomass boiler were based on the following:

PM/PM <sub>10</sub>	–	0.25 lb/MMBtu, from license A-939-71-A-N (dated May 31, 2006), BACT
SO <sub>2</sub>	–	0.025 lb/MMBtu, from AP-42, Table 1.6-2 dated 9/03
NO <sub>x</sub>	–	0.22 lb/MMBtu, from AP-42, Table 1.6-2 for wet wood, dated 9/03
CO	–	0.60 lb/MMBtu, from AP-42, Table 1.6-2 dated 9/03
VOC	–	0.017 lb/MMBtu, from AP-42, Table 1.6-2 dated 9/03
Visible Emissions	–	from license A-939-71-A-N (dated May 31, 2006), BACT

The BPT emission limits for the boiler are the following:

<b>Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>
Boiler #1	PM	0.25

<b>Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler #1 Distillate Fuel	3.6	3.6	0.4	3.1	8.5	0.2

Visible emissions from the boiler shall not exceed 30% opacity on a six-minute block average basis.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use, on a daily or monthly basis, as well as on a calendar year basis. Additionally, a maintenance log for all routine and non-routine maintenance performed on the multiclone shall be kept on site and shall be kept current.

3. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to its size and year of manufacture, Boiler #1 is subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

Boiler #1 is not subject to the requirements of this subpart for the monitoring or testing of sulfur dioxide (SO<sub>2</sub>) and particulate matter (PM) emissions because it does not combust fossil fuels. [40 C.F.R. § 60.40(e)]

KFP shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boiler #1 including, but not limited to, the following:

- a. KFP shall record and maintain records documenting the amounts of biomass fuel combusted during each operating day. As an alternative to daily records, KFP may elect to maintain and keep records that document the amount of fuel combusted in the boiler during each calendar month. [40 C.F.R. § 60.48c(g)]

- b. All records required by 40 C.F.R. Part 60, Subpart Dc shall be maintained by KFP for a period of at least two years following the date of such records. [40 C.F.R. § 60.48c(i)]
- c. The following address for EPA shall be used for any reports or notifications required to be copied to them:

U.S. Environmental Protection Agency, Region I  
5 Post Office Square, Suite 100 (OES04-2)  
Boston, MA 02109-3912  
Attn: Air Compliance Clerk

- 4. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJ

Boiler #1 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources* (40 C.F.R. Part 63 Subpart JJJJJ). The unit is considered an existing biomass boiler.

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA; however, KFP is still subject to the requirements. Notification forms and additional rule information can be found on the following website: <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

- a. Compliance Dates, Notifications, and Work Practice Requirements

- (1) Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than September 17, 2011. KFP submitted their Initial Notification on October 6, 2011.

- (2) Boiler Tune-Up Program

- (i) KFP shall institute and maintain a biennial boiler tune-up program. [40 C.F.R. § 63.11223(a) and Table 2]
- (ii) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

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

(iii) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both before and after the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler.

[40 C.F.R. § 63.11223(b)(6)]

(iv) The initial boiler tune-up was required to be completed by March 21, 2014. A Notification of Compliance Status report indicating the completion of the initial boiler tune-up was to be submitted to EPA no later than July 19, 2014. KFP executed their initial boiler tune-up on March 1, 2017 and submitted their Notification of Compliance Status to the EPA on April 3, 2017. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(b)].

(3) Compliance Report

A compliance report shall be prepared by March 1<sup>st</sup> biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
  1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
  2. "No secondary materials that are solid waste were combusted in any affected unit."
  3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

(4) Energy Assessment

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

- (i) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014.
- (ii) The energy assessment was required to include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the



energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 C.F.R. Part 63, Subpart JJJJJ, Table 2(16)]

(iii) A Notification of Compliance Status indicating the completion of the energy assessment was required to be submitted to EPA no later than July 19, 2014. KFP had a one-time energy assessment performed by a qualified energy assessor on March 8, 2017, and submitted their Notification of Compliance Status to the EPA on April 3, 2017. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(c)]

**b. Recordkeeping**

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

**D. Wood Drying Kiln**

KFP operates one kiln for the drying of cedar and pine lumber used in their log home manufacturing process. The facility is licensed to process 3.0 million board feet per year through the wood drying kiln. VOC emissions released from the kiln during the wood drying process have been estimated using data derived from studies conducted by the National Council for Air and Stream Improvement, Inc. (NCASI) and the University of Maine. The kiln dries cedar species nearly exclusively; therefore the cedar emission factor of 0.12 lb VOC per 1,000 board feet was used to estimate the VOC emissions from the kiln. This factor yields a total calculated annual VOC emission from the kiln of 0.20 tons per year. For this air license, KFP will be limited to an annual VOC

emission cap of 0.50 tons per year, to allow for potential variations in the properties of the wood being dried. KFP shall maintain records of wood throughput in the kiln by species, on a 12-month rolling basis.

E. Process Equipment Emissions

Particulate matter emissions from the sawmill, the planer mill and picket mill are controlled by cyclones. The process cyclones shall be visually inspected at least once a calendar quarter. A maintenance log shall be kept for the process cyclones, documenting all inspections, routine and non-routine maintenance performed, and the dates that the work was done. Visible emissions from the process cyclones and any general process source shall each not exceed an opacity of 20 % on a six-minute block average basis.

F. Parts Washer

The parts washer has a design capacity of 2 gallons and uses monoethanolamine / naphtha as a solvent. Therefore, the parts washer is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130 and records shall be kept documenting compliance.

G. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity.

H. Annual Emissions

1. Total Annual Emissions

KFP shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on a fuel limit of 6,000 tons per year of through the boiler with an average moisture content of 43% and an average higher heating value of 5,130 Btu per lb, and a limit of 3.0 million board feet of lumber throughput through the wood drying kiln.

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

<b>Unit</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers	7.7	7.7	0.8	6.8	18.5	0.5
Wood Kiln	--	--	--	--	--	0.5
<b>Total TPY</b>	<b>7.7</b>	<b>7.7</b>	<b>0.8</b>	<b>6.8</b>	<b>18.5</b>	<b>1.0</b>

2. Greenhouse Gases

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

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limit;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

**III. AMBIENT AIR QUALITY ANALYSIS**

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

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

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

**ORDER**

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

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

The Department hereby grants Air Emission License A-939-71-D-R/M subject to the following conditions.

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

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
  - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    2. Pursuant to any other requirement of this license to perform stack testing.
  - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. 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 C.M.R. ch. 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
  - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.  
[06-096 C.M.R. ch. 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.  
[06-096 C.M.R. ch. 115]

**SPECIFIC CONDITIONS**

**(16) Boiler #1**

- A. Wood, bark and biomass shall be fired in Boiler #1. KFP shall be limited to combusting no more than 6,000 tons per year of fuel on a calendar year basis. The limit is based on the biomass fuel having an average moisture content of 43% and an average higher heating value of 5,130 Btu per lb. [06-096 C.M.R. ch. 115, BPT]
- B. KFP shall keep records documenting the amount of biomass fuel combusted in Boiler #1. Fuel use shall be measured by monitoring a rotating feed valve that meters the fuel into the boiler. KFP shall keep and update the fuel use records for Boiler #1 on either a daily or a monthly basis, as well as on a calendar year basis. [40 C.F.R. § 60.48c(g)]
- C. KFP may fire sawdust and shavings that have been used to absorb oil spills that occur at their facility. The oil-infused wood shall be mixed with the virgin sawdust and shavings prior to being fed into the boiler. KFP shall keep records of any oil-infused wood fuel fired, detailing the on-site origin of the oil, the estimated amount of oil in the wood material, and the date that it was burned in the boiler. [06-096 C.M.R. ch. 115, BPT]
- D. All records required by 40 C.F.R. Part 60 Subpart Dc shall be maintained by KFP for a period of at least two years following the date of such records. [40 C.F.R. § 60.48c(i)]
- E. Emissions from Boiler #1 shall be exhausted through a multiclone. A log shall be kept documenting all inspections, routine and non-routine maintenance performed on the multiclone, and their dates of completion. [06-096 C.M.R. ch. 115, BPT]
- F. Emissions shall not exceed the following:

<b>Emission Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
Boiler #1	PM	0.25	A-939-71-A-N (dated May 31, 2006), BACT

- G. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler #1	3.6	3.6	0.4	3.1	8.5	0.2

- H. Visible emissions from Boiler # shall not exceed 30% opacity on a six-minute block average basis. [A-939-71-A-N (dated May 31, 2006), BACT]
- I. Boiler MACT (40 C.F.R. Part 63, Subpart JJJJJ) Requirements for Boiler #1 [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
    - a. A boiler tune-up shall be conducted at least once every two years (biennially). [40 C.F.R. § 63.11223(a) and Table 2]
    - b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
      - (1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
      - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
      - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
      - (4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
      - (5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
      - (6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]
    - c. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
      - (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both before and after the boiler tune-up;
      - (2) A description of any corrective actions taken as part of the tune-up of the boiler. [40 C.F.R. § 63.11223(b)(6)]



2. Compliance Report

A compliance report shall be prepared by March 1<sup>st</sup> biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- d. The following certifications, as applicable:
  - (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
  - (2) "No secondary materials that are solid waste were combusted in any affected unit."
  - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

3. Energy Assessment

- a. A one-time energy assessment was required to be performed by a qualified energy assessor on each applicable boiler. [40 C.F.R. § 63.11196(a)(3)]
- b. The energy assessment was required to include a visual inspection of the boiler system; an evaluation of operating characteristics of each affected boiler system, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from each affected boiler and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 C.F.R. Part 63, Subpart JJJJJ, Table 2(16)]

4. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:
  - a. Copies of notifications and reports with supporting compliance documentation;
  - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
  - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
  - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.

EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

**(17) Wood Drying Kiln**

KFP shall limit their throughput of lumber through the wood drying kiln to a maximum of 3.0 million board feet per year. KFP shall demonstrate compliance through the keeping and maintenance of kiln loading records by species, on a calendar year basis. [06-096 C.M.R. ch. 115, BPT]

**(18) Process Equipment**

- A. Particulate emissions from the sawmill, the planer mill and the picket mill shall be controlled by cyclones. [06-096 C.M.R. ch. 115, BPT]
- B. A maintenance log shall be kept for the process cyclones. A visual inspection of the cyclones shall take place at least once a calendar quarter. All inspections, along with all routine and non-routine maintenance performed, and their dates of completion shall be documented in the log. [06-096 C.M.R. ch. 115, BPT]
- C. Visible emissions from the process cyclones and any general process sources shall not exceed an opacity of 20% on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(19) **Parts Washer**

The parts washer at KFP is subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

- A. KFP shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]
- B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 130]:
  1. Solvent cleaners using less than two liters (68 oz.) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.
  1. KFP shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 C.M.R. ch. 130]:
    - a. Waste solvent shall be collected and stored in closed containers.
    - b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
    - c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
    - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
    - e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
    - f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
    - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
    - h. Work area fans shall not blow across the opening of the parts washer unit.
    - i. The solvent level shall not exceed the fill line.
  2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 C.M.R. ch. 130]

Katahdin Forest Products Co.  
Aroostook County  
Oakfield, Maine  
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(20) **Fugitive Emissions**

Visible emissions from any fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity. [06-096 C.M.R. ch. 101]

- (21) KFP shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 19 DAY OF April, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Come for  
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 17, 2016

Date of application acceptance: October 19, 2016

Date filed with the Board of Environmental Protection:

This Order prepared by Patric J. Sherman, Bureau of Air Quality.

