STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

Irving Forest Products, Inc. **Oxford County** **Dixfield, Maine** **A-409-70-F-R/A**	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License** **Renewal with Amendment**

FINDINGS OF FACT

After review of the Part 70 License renewal and amendment 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

FACILITY	Irving Forest Products, Inc.
LICENSE TYPE	Part 70 License Renewal and Part 70 Significant License Modification
NAICS CODES	321912, 321113, 321999
NATURE OF BUSINESS	Lumber Manufacturer
FACILITY LOCATION	24 Hall Hill Road, Dixfield, Maine

Irving Forest Products, Inc. (IFP) is a manufacturer of kiln-dried pine lumber. The facility consists of a sawmill, a planer mill, drying kilns, three boilers, fuel storage, and a maintenance garage.

IFP has the potential to emit more than 100 tons per year (tpy) nitrogen oxides (NO_x) and carbon monoxide (CO), and more than 50 tpy of volatile organic compounds (VOC). Therefore, the source is a major source for criteria pollutants. IFP does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP. Therefore, the source is an area source for HAP.

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B. Emission Equipment

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

Boilers

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Fuel Type, % sulfur	Manufacture Date	Install Date	Stack #
Boiler #1	20.6	biomass, negligible	1959	1959	1
Boiler #2	20.6	biomass, negligible	1960	1960	1
Boiler #4	49.3	biomass, negligible	pre-1984	1994	3

Engines

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Manufacture Date	Installation Date
Fire Pump #1	2.0	14.6	distillate fuel, 0.0015%	1997	1997
Generator #1	1.2	8.8	distillate fuel, 0.0015%	1999	2009

Process Equipment

Equipment	Capacity
Drying Kilns (1-11)	190,000 BF per cycle per kiln
Cyclone #1 (Value Added Shavings)	6,000 tpy
Cyclone #2 (Planer Mill Shavings)	25,000 tpy
Cyclone #3 (Bagger Silo)	25,000 tpy
Cyclone #4 (Shavings Hopper)	25,000 tpy
Cyclone #5 (Planer Mill Chip Hopper)	6,000 tpy
Cyclone #6 (Boiler #1&#2 Fuel Silos)	1,000 tpy
Cyclone #7 (Boilers #1&#2 Fuel Input)	14,000 tpy

IFP operates aqueous-based parts washers. The cleaning solution contains less than 5% VOC, the equipment does not meet the definition of solvent cleaning machine, and there are no applicable requirements in *Solvent Cleaners,* 06-096 C.M.R. ch. 130. Therefore, they are considered insignificant activities and mentioned for completeness purposes only.

IFP has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

C. Acronym List

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring

CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
CO_2e	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
EPA or US EPA	United States Environmental Protection Agency
gal/hr	gallon per hour
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutants
lb	pound
lb/hr	pound per hour
lb/MMBtu	pound per million British thermal units
M.R.S.	Maine Revised Statutes
MMBtu	Millions of British Thermal Units
MMBtu/hr	Million British thermal units per hour
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter less than 100 microns in diameter
PM_{10}	Particulate Matter less than 10 microns in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 microns in diameter
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
SO_2	Sulfur Dioxide
ton/hr	ton per hour
tpy	ton per year
VOC	Volatile Organic Compounds

D. Definitions

Continuously. With respect to the operation of parameter monitors required by this license, *continuously* means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitutes a valid hour.

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Portable Engine. For the purposes of this license, *portable engine* means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

E. 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 IFP is for the renewal of their existing Part 70 Air License and subsequent Part 70 amendments. Pursuant to Section 2(A) of *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140, IFP has also requested incorporation into the Part 70 Air License the relevant terms and conditions of the New Source Review (NSR) licenses issued to the facility pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, including A-409-77-2-A issued July 18, 2018, and A-409-77-3-M issued September 20, 2018. Therefore, this license is considered to be a Part 70 License renewal with a Part 70 Significant Modification for the incorporation of NSR requirements.

F. Facility Classification

1. Criteria Pollutants

   Based on the licensed size and operation of the facility's equipment, IFP is licensed above the major source threshold for criteria pollutants and is considered a major source.

2. Hazardous Air Pollutants

Emission factors for HAPs from the drying of lumber are included in the *Handbook of Substance-Specific Information of National Pollutant Release Inventory Reporting*, also known as the "NPRI Handbook," issued by the National Council for Air and Stream Improvement (NCASI). The NPRI Handbook is designed to assist NCASI's Canadian members with reporting requirements under Environment Canada's NPRI program which is similar to EPA's Toxics Release Inventory (TRI) reporting program. Additionally, Environment Canada publishes these same emission factors on their website for use in emissions reporting.

The NPRI Handbook provided emissions data for white spruce and black spruce. Although IFP dries pine lumber in their kilns, these are the only emission factors found to be available for species native to the Northeast. To establish appropriate emission factors, the average of the data for white and black spruce was used. This is consistent with the methodology used for other similar facilities within the state.

The emission factors used were as follows:

Pollutant	**lb/MBF**
Acetaldehyde	8.65×10^{-2}
Acrolein	1.15×10^{-3}
Benzene	1.55×10^{-5}
Formaldehyde	8.00×10^{-3}
Methanol	1.285×10^{-1}
Methyl Isobutyl Ketone	2.55×10^{-3}
Toluene	2.50×10^{-4}

Based on these emission factors, the currently licensed kiln throughput limit of 108.05 MMBF/year, and the currently licensed restrictions on the facility's other emissions equipment, IFP is limited to a maximum single HAP emission of less than 9.9 tpy and total HAP emissions of less than 24.9 tpy. Therefore, IFP is classified as an area source of HAP.

G. Facility Description

IFP is a manufacturer of kiln-dried pine lumber. The main mill includes a sawmill, a planer mill, 11 kilns, three boilers, fuel storage, and a maintenance garage.

Logs are delivered by truck to the mill and placed in inventory. They are sprayed with water to prevent damage by aerobic organisms. The logs are transferred from inventory into the mill by a portal crane. The crane feeds the logs to two decks, each feeding one of the two ring debarkers. All the bark is collected by mechanical conveyors and fed into a truck-loading bin to eventually be hauled offsite to customers.

The sawmill consists of two log breakdown lines. The first line is the head-rig line, which consists of a double-cut vertical band-saw and a twin horizontal band-saw. The second line is the quad line, which consist of two chipper heads, four vertical band-saws, and a twelve-inch double arbor gang circular saw. There are two saw edgers that are fed from these two lines.

Lumber is fed to a single 16-foot trim saw line feeding into a length and width sorter which feeds into a sticker stacker. Lumber is then transferred by forklift into storage to await kiln drying.

Waste from these machines is chipped and conveyed, along with chips from the chipping heads, to a truck bin to eventually be loaded into trucks and delivered offsite to customers.

There are two waste system chippers on the first floor of the sawmill with cyclones and screens inside the building. Sawdust is captured by the cyclones and conveyed to a truck bin where it is eventually loaded onto trucks for either transfer on-site to the biomass-fired boilers or delivery offsite to customers.

The lumber is stored in a covered storage area. Fans blow on the wood in the storage area to keep it cool and to prevent growth of fungi that cause staining. The boards produced at IFP are kiln dried at the plant. There are 11 kilns located at the mill. The kilns are track kilns each having a capacity of 190,000 board feet (BF) per cycle. The lumber is transported from inventory into the kilns by forklift. Moisture from the kilns is exhausted through multiple vents to the atmosphere.

After being dried, the wood is transferred by forklift to the planer mill. Rough, dry lumber is fed through a planer machine to create finished lumber. Finished lumber is conveyed to a grading station where it is graded. After grading, trim saws are used to trim for grade and length. The lumber is then sorted and stacked according to grade and length.

The planer shavings and trimmer sawdust are pneumatically conveyed to the planner mill shavings cyclone. The planer mill shavings cyclone drops the shavings into a blowpipe that blows the dust to the bagger silo cyclone and into the bagger silo. Shavings from the bagger silo are blown from the silo to the shavings hopper cyclone where the dust is dropped into the bagger for loading onto trucks and sold offsite.

Wood from the trimmers in the planner mill is mechanically conveyed to a dry hog. The hogged wood is pneumatically blown to a truck-loading bin where it is loaded onto trucks and transported to hoppers for use as fuel for the facility’s three boilers or delivered offsite to customers.

Wood waste and chips to be burned in the boilers are delivered by truck and dumped into hoppers. The facility also purchases chipped wood pallets for use as boiler fuel. The pallets

are considered traditional biomass fuel provided the pallets are not coated, painted or treated in any way. A series of conveyors, augers, and bucket-elevators deliver the wood fuel to the wood fired boilers. One cyclone is used at Boilers #1 & #2 where sawdust is blown into a hopper before it is fed into the boiler.

IFP makes use of three biomass-fired boilers designated Boilers #1, #2, and #4. These boilers are used to provide heat for the kilns as well as space heat for other buildings.

H. General Facility Requirements

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

CITATION	REQUIREMENT TITLE
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 75	Continuous Emissions Monitoring

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

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 as well as for those sources located in designated non-attainment areas.

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

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

B. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year.

The boilers, Fire Pump #1, and Generator #1 are exempt from VOC RACT because their emissions of VOC are the product of incomplete combustion per Section 1(C)(4) of the rule. The drying kilns are also exempted from VOC RACT per Section 1(C)(6). Therefore, there is no VOC emitting equipment at IFP subject to the requirements of 06-096 C.M.R. ch. 134.

C. Mandatory Greenhouse Gas (GHG) Reporting

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

(a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.

(a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO_2e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart.

(a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.

(i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.

(ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.

(iii) The facility emits 25,000 metric tons CO_2e or more per year in combined emissions from all stationary fuel combustion sources.

IFP does not belong to any of the categories listed in Table A-3 or A-4, and this facility does have stationary fuel combustion units which have an aggregate heat input rating greater than 30 MMBtu/hr.

When calculating CO_2e emissions from biomass combustion, emissions of methane (CH_4) and nitrous oxide (N_2O) are included, but emissions of carbon dioxide (CO_2) are not. With the exclusion of CO_2 emissions, IFP does not have the potential to emit greater than 25,000 metric tons of CO_2e and is therefore not subject to the reporting requirements of 40 C.F.R. Part 98.

D. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 percent of the major source threshold (50 tpy for VOC and 100 tpy for any other pollutant).

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

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

40 CFR Part 64 Applicability Table

Unit	Eligible Pollutant	CAM Required	Reason	Regulatory Authority
Boiler #4	PM/PM_{10}	No	Pre-control emissions are less than 100 tpy	40 C.F.R. § 64.2(a)(3)
	NO_x	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
	CO	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
Kilns	VOC	No	Emissions are greater than 50 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)

Therefore, there are no units at this facility subject to CAM requirements.

E. Boilers #1 and #2

Boilers #1 and #2 (the Dillon Boilers) are biomass-fired boilers with maximum design heat input capacities of 20.6 MMBtu/hr each. The average moisture content of the biomass fired in Boilers #1 and #2 is assumed to be 50% by weight.

Both boilers exhaust to a common stack (Stack #1). Boilers #1 and #2 were manufactured in 1959 and 1960 respectively.

Boilers #1 and #2 also fire chipped wood pallets. *Solid Wastes Used as Fuels or Ingredients in Combustion Units*, 40 C.F.R. Part 241 includes untreated wood pallets in the definition of "clean cellulosic biomass." This regulation's definition of "traditional fuels" includes clean cellulosic biomass. Therefore, untreated wood pallets are considered a traditional fuel and not a solid waste. The pallets burned in Boilers #1 and #2 are not to be coated, painted, or treated in any way, and all fasteners must be removed prior to combustion. Failure to remove fasteners from the pallets may make use of this fuel subject to *Solid Waste Management Rules: Beneficial use of Solid Wastes*, 06-096 C.M.R. ch. 418.

1. New Source Performance Standards (NSPS)

   Boilers #1 and #2 underwent physical changes per air emission license A-409-74-D-R/A, issued 3/11/1993. The boilers were retrofit in two ways; by changing the fuel delivery method and installing a multi-zone underfire air grate system. An infeed screw auger system replaced the air swept spreader stoker, and a 12-zone underfire air grate system was added to allow for increased control of where underfire air was introduced. Both of these changes were intended to reduce emissions of

particulate matter. Since neither of these changes resulted in increased emissions, these changes were not considered a modification as defined by 40 C.F.R. Part 60.

This NSR license amendment does not make any physical changes or changes to the way the boilers are operated. Therefore, the changes addressed in this license are not considered a modification under 40 C.F.R. Part 60.

Therefore, due to their year of manufacture, Boilers #1 and #2 are not 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]

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

   Boilers #1 and #2 are subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. They are considered existing biomass boilers. Requirements for this subpart are addressed in a separate section below.

3. NO_x RACT

   IFP exceeds 100 tpy of annual total potential emissions of NO_x. Therefore, IFP is subject to *Reasonably Available Control Technology for Facilities That Emit Nitrogen Oxides*, 06-096 C.M.R. ch. 138. Requirements for this subpart are addressed in a separate section below.

4. Emission Limits and Streamlining

   For Boilers #1 and #2, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. The standards below apply to each boiler. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.57 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(3)(a)	0.30 lb/MMBtu *
	0.30 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	
	6.17 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	6.17 lb/hr
PM_{10}	6.17 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	6.17 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	0.51 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	0.51 lb/hr
NO_x	8.22 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	8.22 lb/hr
CO	12.34 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	12.34 lb/hr
VOC	0.35 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	0.35 lb/hr
Visible Emissions	30% opacity on a six (6) minute block average basis, except for no more than three (3) six (6) minute block avgs in a 3-hr period	06-096 CMR 101, §2(B)(5)(a)	30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to comply with work practice standards *
	30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to comply with work practice standards	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	

5. Visible Emissions

Visible emissions from Stack #1 (Boilers #1 and #2) shall not exceed 30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to demonstrate compliance by complying with all of the following work practice standards.

a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler (Boilers #1 and #2).

b. IFP shall develop and implement a written startup and shutdown plan for Boilers #1 and #2.

c. Boilers #1 and #2 shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boilers #1 and #2 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber temperature exceeds 1,600 ºF. The total duration of this period shall not exceed four (4) hours.

A *shutdown period* is defined as a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four (4) hours.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boilers #1 and #2 shall be demonstrated in accordance with the appropriate test methods upon request by the Department.

7. Periodic Monitoring

IFP shall operate, record data, and maintain records from the following periodic monitors for Boilers #1 and #2 (each):

a. Hours of operating time on a monthly and calendar year total. [06-096 C.M.R. ch. 137]
b. Amount of biomass (tons) fired in each boiler on a monthly, 12-month rolling total, and calendar year total. Biomass fuel usage may be calculated from steam flow. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
c. Percent oxygen (% O_2) monitored continuously and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 138 § (3)(L)(2)(c)]
d. Records of maintenance activities performed on each boiler. [06-096 C.M.R. ch. 140, BPT]
e. Records of annual boiler tune-ups. [06-096 C.M.R. ch. 138, § (3)(L)(2)]
f. Records of the date, time, and duration of all startups, shutdowns, and malfunctions for each boiler. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

8. Parameter Monitors

There are no Parameter Monitors required for Boilers #1 and #2.

9. CEMS and COMS

There are no CEMS or COMS required for Boilers #1 and #2.

F. Boiler #4

Boiler #4 (also known as the IBC Boiler) is a biomass-fired boiler with a maximum design heat input capacity of 49.3 MMBtu/hr. The average moisture content of the biomass fired in Boiler #4 is assumed to be 50% by weight. It exhausts to Stack #3.

Boiler #4 was manufactured and installed at Bates College in Lewiston, Maine prior to 1984 and was moved to the IFP facility in 1994.

Boiler #4 also fires chipped wood pallets. *Solid Wastes Used as Fuels or Ingredients in Combustion Units,* 40 C.F.R. Part 241 includes untreated wood pallets in the definition of "clean cellulosic biomass." This regulation's definition of "traditional fuels" includes clean cellulosic biomass. Therefore, untreated wood pallets are considered a traditional fuel and not a solid waste. The pallets burned in Boiler #4 are not to be coated, painted, or treated in any way, and all fasteners must be removed prior to combustion.

1. Control Equipment

   Particulate matter emissions from Boiler #4 are controlled by two multi-cyclone mechanical dust collectors in series.

2. New Source Performance Standards (NSPS)

   Boiler #4 is not subject to the New Source Performance Standards (NSPS) titled *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units,* 40 C.F.R. Part 60, Subpart Dc due to its age. These standards apply to steam generating units with a heat input capacity of 10 MMBtu/hr or more that are constructed after June 9, 1989. Boiler #4 was manufactured prior to 1989.

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

   Boiler #4 is subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources,* 40 C.F.R. Part 63, Subpart JJJJJJ. It is considered an existing biomass boiler. Requirements for this subpart are addressed in a separate section below.

4. NO_x RACT

   IFP exceeds 100 tpy of annual total potential emissions of NO_x. Therefore, IFP is subject to *Reasonably Available Control Technoloty for Facilities That Emit Nitrogen Oxides,* 06-096 C.M.R. ch. 138. Requirements for this rule are addressed in a separate section below.

5. Emission Limits and Streamlining

For Boiler #4, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.30 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(4)(a)	0.27 lb/MMBtu *
	0.27 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	
	13.31 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	13.31 lb/hr
PM_{10}	13.31 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	13.31 lb/hr
SO_2	1.23 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	1.23 lb/hr
NO_x	19.72 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	19.72 lb/hr
CO	29.58 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	29.58 lb/hr
VOC	0.84 lb/hr	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	0.84 lb/hr
Visible Emissions	30% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block avgs in a 3-hr period	06-096 CMR 101, §2(B)(5)(a)	30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to comply with work practice standards *
	30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to comply with work practice standards	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	

6. Visible Emissions

Visible emissions from Stack #3 (Boiler #4) shall not exceed 30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to demonstrate compliance by complying with all of the following work practice standards.

a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for Boiler #4.

b. IFP shall develop and implement a written startup and shutdown plan for Boiler #4.

c. Boiler #4 shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boiler #4 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber temperature exceeds 1,925 ºF. The total duration of this period shall not exceed four (4) hours.

A *shutdown period* is defined as a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four (4) hours.

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #4 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

IFP operates a non-specification opacity monitor on the exhaust from Boiler #4. This monitor is required for operational purposes, as it gives an indication of visible emission trends that can assist the operator. However, this monitor is not sited or intended for compliance purposes. Compliance with the visible emissions limits from Boiler #4 shall be demonstrated by Method 9 observations upon request of the Department.

8. Periodic Monitoring

IFP shall operate, record data, and maintain records from the following periodic monitors for Boiler #4:

a. Hours of operating time on a monthly and calendar year total. [06-096 C.M.R. ch. 137]
b. Amount of biomass (tons) fired on a monthly, 12-month rolling total, and calendar year total. Biomass fuel usage may be calculated from steam flow. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
c. Opacity from Stack #3 monitored continuously by a non-specification opacity monitor and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
d. Percent oxygen (% O_2) monitored continuously and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 138 § (3)(L)(2)(c) and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
e. Records of maintenance activities performed on Boiler #4 and the multi-cyclones. [06-096 C.M.R. ch. 140, BPT]
f. Records of annual boiler tune-ups. [06-096 C.M.R. ch. 138, § (3)(L)(2)]
g. Records of the date, time, and duration of all startups, shutdowns, and malfunctions. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

9. Parameter Monitors

There are no Parameter Monitors required for Boiler #4.

10. CEMS and COMS

There are no specification CEMS or COMS required for Boiler #4.

G. NESHAP: 40 C.F.R. Part 63, Subpart JJJJJJ

Boilers #1, #2, and #4 are subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources,* 40 C.F.R. Part 63 Subpart JJJJJJ. They are considered existing biomass boilers.

1. Compliance Dates, Notifications, and Work Practice Requirements

a. Boiler Tune-Up Program

(1) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(2) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of each boiler. See chart below:

Boiler Category	Tune-Up Frequency
Existing biomass boiler without oxygen trim system	Every 2 years
Existing biomass boiler with oxygen trim system which maintains an optimum air-to-fuel ratio	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

Boiler #4 does have an oxygen trim system and Boilers #1 and #2 do not. However, annual tune-ups are also required on these boilers per 06-096 C.M.R. ch. 138. IFP has requested streamlining regarding the frequency of tune-ups to be performed on the boilers. Therefore, IFP shall perform tune-ups in accordance with the standards of both 06-096 C.M.R. ch. 138 and 40 C.F.R. Part 63, Subpart JJJJJJ on an annual basis.

(3) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

(i) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. [40 C.F.R. § 63.11223(b)(1)]
(ii) 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)]
(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. [40 C.F.R. § 63.11223(b)(3)]
(iv) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
(v) 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)]
(vi) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. [40 C.F.R. § 63.11223(b)(7)]

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

(i) 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;
(ii) A description of any corrective actions taken as part of the tune-up of the boiler; and
(iii) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

(5) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 C.F.R. § 63.11225(a)(4) and 40 C.F.R. § 63.11214(b)] IFP submitted their Notification of Compliance Status on July 15, 2014.

b. Compliance Report

A compliance report shall be prepared by March 1st every two years which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or 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)]

(1) Company name and address;
(2) A statement of whether the source has complied with all the relevant requirements of this Subpart;
(3) 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;
(4) The following certifications, as applicable:
(i) "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."
(ii) "No secondary materials that are solid waste were combusted in any affected unit."
(iii) "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."

c. Energy Assessment

A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 C.F.R. § 63.11196(a)(3)] IFP has certified to EPA that the one-time energy assessment has been completed.

2. Recordkeeping

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

b. 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)]

H. NO_x RACT

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. Boilers #1, #2, and #4 are each considered "small boilers" as defined by the rule. Small boilers are required to conduct annual tune-ups and comply with the following tune-up recordkeeping requirements:

1. A tune-up procedure file must be kept on-site and made available to the Department upon request.
2. An oxygen/carbon monoxide curve or an oxygen/smoke curve must be kept on file.
3. Once the optimum excess oxygen setting has been determined, IFP must periodically verify that the setting remains at that value.
4. If the oxygen level found is substantially higher than the value provided by the combustion unit manufacturer, IFP must improve the fuel and air mixing, thereby allowing operation with less air.

I. Fire Pump #1 and Generator #1

IFP operates Fire Pump #1 which has an engine rated at 2.0 MMBtu/hr firing distillate fuel. Fire Pump #1 was manufactured and installed in 1997.

IFP operates one emergency generator (Generator #1). Generator #1 is a generator set consisting of an engine and electrical generator. Generator #1's engine is rated at 1.2 MMBtu/hr and fires distillate fuel. It was manufactured in 1999 and installed in 2009.

1. New Source Performance Standards (NSPS)

   Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is not applicable to either Fire Pump #1 or Generator #1 since both units were manufactured prior to April 1, 2006.

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

   National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Fire Pump #1 and Generator #1. The units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at an area HAP source and they are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

   a. Emergency Engine Designation and Operating Criteria

      Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

      (1) Emergency Situation Operation (On-Site)

      There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

      - Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or

interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Fire Pump #1 and Generator #1 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements
40 C.F.R. § 63.6603(a) and Table 2(d)

	Operating Limitations
Compression ignition (distillate fuel) units:	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or IFP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program
IFP has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, IFP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 CFR§63.6625(i)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

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

(5) Annual Time Limit for Maintenance and Testing
As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not

include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

IFP shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

3. Emission Limits and Streamlining

For Fire Pump #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM (See Note 1)	0.62 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) **State-only**	0.62 lb/hr
PM_{10} (See Note 1)	0.62 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) **State-only**	0.62 lb/hr
SO_2	Determined to be negligible based on 0.0015% sulfur fuel	06-096 C.M.R. ch. 140, BPT **State-only**	N/A
NO_x	8.82 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) **State-only**	8.82 lb/hr
CO	1.90 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) **State-only**	1.90 lb/hr
VOC	0.70 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) **State-only**	0.70 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block avgs in a 3-hr period	06-096 CMR 101, §2(B)(1)(f)	20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with work practice standards * Federally Enforceable
	20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with work practice standards	06-096 C.M.R. ch. 140, BPT **State-only**	

Note 1: Previous PM emission limits were based on 0.12 lb/MMBtu. Emission limits in this license have been adjusted to be based on the current AP-42 emission factor of 0.31 lb/MMBtu for small distillate fuel-fired engines.

For Generator #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM (See Note 1)	0.37 lb/hr	06-096 C.M.R. ch. 140, BPT **State-only**	0.37 lb/hr
PM_{10} (See Note 1)	0.37 lb/hr	06-096 C.M.R. ch. 140, BPT **State-only**	0.37 lb/hr
SO_2	Determined to be negligible based on 0.0015% sulfur fuel	06-096 C.M.R. ch. 140, BPT (A-409-70-D-R) **State-only**	N/A
NO_x	5.29 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-D-R) **State-only**	5.29 lb/hr
CO	1.14 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-D-R) **State-only**	1.14 lb/hr
VOC	0.42 lb/hr	06-096 C.M.R. ch. 140, BPT (A-409-70-D-R) **State-only**	0.42 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block avgs in a 3-hr period	06-096 CMR 101, §2(B)(1)(f)	20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with work practice standards *
	20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with work practice standards	06-096 C.M.R. ch. 140, BPT **State-only**	

Note 1: Previous PM emission limits were based on 0.12 lb/MMBtu. Emission limits in this license have been adjusted to be based on the current AP-42 emission factor of 0.31 lb/MMBtu for small distillate fuel-fired engines.

4. Visible Emissions

Fire Pump #1 and Generator #1 are subject to a visible emissions limit of 20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with the following work practice standards:

a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all startups for Fire Pump #1 and Generator #1.

b. Fire Pump #1 and Generator #1 shall be operated in accordance with the manufacturer's emission-related operating instructions.

c. IFP shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

d. Fire Pump #1 and Generator #1 shall each be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

5. Emission Limit Compliance Methods

   Compliance with the emission limits associated with Fire Pump #1 and Generator #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Periodic Monitoring

   IFP shall operate, record data, and maintain records from the following periodic monitors for Fire Pump #1 and Generator #1:

   a. Hours of operating time on a calendar year total. [06-096 C.M.R. ch. 137]
   b. Log of the date, duration, and reasons for all operating times as they occur. [40 C.F.R. Part 63, Subpart ZZZZ]
   c. Records of all maintenance conducted. [40 C.F.R. Part 63, Subpart ZZZZ]

7. Parameter Monitors

   There are no Parameter Monitors required for Fire Pump #1 or Generator #1.

8. CEMS and COMS

   There are no CEMS or COMS required for Fire Pump #1 or Generator #1.

J. Portable Engines

Facility may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of “portable engine” as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

K. Drying Kilns

IFP utilizes 11 kilns to dry lumber before sale. Kilns #1 through #11 are track kilns each with rated capacities of 190,000 BF per cycle.

IFP predominantly dries eastern white pine. IFP's NSR Air Emission License amendment (A-409-77-2-A) established a kiln through-put restriction of 108.05 MMBF/yr. Using a factor of 2.26 pounds of VOC released in the kiln drying process for every 1,000 BF of white pine dried, IFP is restricted to an annual VOC emission limit from kiln operations of no greater than 122.1 tons of VOC per year based on a twelve-month rolling total.

L. Cyclones and General Process Emissions

IFP utilizes a number of process cyclones throughout the facility for handling material (such as sawdust and shavings) that is generated by the wood processing equipment. Blowers convey the material from the process equipment, which includes saws, planers and wood conveying belts, to the cyclones.

Cyclone #1 is the Value-Added Shavings Cyclone and is used to control particulate emissions from the value-added building. Cyclone #2 is the Planer Mill Shavings Cyclone. The trimmer sawdust and planer shavings are pneumatically conveyed to the Planer Mill Shavings Cyclone. The Planer Mill Shavings Cyclone drops the sawdust into a blowpipe that blows the dust to Cyclone #3, the Bagger Silo Cyclone, and into the Bagger Silo. Sawdust from the Bagger Silo is blown from the silo to Cyclone #4, the Shavings Hopper Cyclone, where the dust is dropped into the bagger for loading onto trucks and sold offsite.

Cyclone #5 is located at the Planer Mill Chip Hopper, which is a hopper used for directly dumping shavings and sawdust from the Planer Mill into trucks. Cyclone #6 is the Dillon Boiler Fuel Silo. The Dillon Boiler Fuel Silo is also called the Tek Tank. It receives shavings and sawdust from the Specialty mill or Value-added Shop. Cyclone #6 is located at the top of the Dillon Boiler House. The fuel is blown from the Tek Tank to the top of the boiler house where it is dropped into the fuel delivery system via Cyclone #7.

1. Emission Limits and Streamlining

   For the cyclones and other general process sources, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block avg in a 1-hr period	06-096 C.M.R. ch. 101, §2(B)(3)(d)	20% opacity on a six (6) minute block average basis * Federally Enforceable
	20% opacity on a six (6) minute block average basis	06-096 C.M.R. ch. 140, BPT **State-only**	

2. Periodic/Parameter Monitoring

   IFP shall operate, record data, and maintain records from the following periodic monitors for the cyclones:

   a. Records of monthly inspections of each cyclone. [06-096 C.M.R. ch. 140, BPT]
   b. Records of maintenance activities performed on each cyclone. [06-096 C.M.R. ch. 140, BPT]

M. Parts Washer

The parts washers used at IFP use a degreaser that contains less than 5% VOC and are therefore not subject to *Solvent Degreasers*, 06-096 C.M.R. ch. 130.

N. Fugitive Emissions

For fugitive emission sources (including stockpiles and roadways), a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	20% opacity except for no more than 5 minutes in any 1-hr period. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.	06-096 C.M.R. ch. 101, § 2(B)(4)(a)	20% opacity except for no more than 5 minutes in any 1-hr period during which time visible emissions shall not exceed 30%. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. * Federally Enforceable
	20% opacity except for no more than 5 minutes in any 1-hr period during which time visible emissions shall not exceed 30%. Compliance determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour.	06-096 C.M.R. ch. 140, BPT **State-only**	

O. Emissions Statement

IFP is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. IFP shall maintain the following records in order to comply with this rule:

1. The amount of biomass fired (at 50% moisture) in Boilers #1, #2, and #4 on a monthly basis;
2. The amount of distillate fuel fired in Fire Pump #1 and Generator #1 on an annual basis;
3. The sulfur content of the distillate fuel fired in Fire Pump #1 and Generator #1;
4. Kiln throughput on a monthly basis;
5. Hours of operation for each emission unit on a monthly basis.

In reporting year 2020 and every third year thereafter, IFP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. IFP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3).
[38 M.R.S. § 353-A(1-A)]

P. Facility Annual Emissions

1. Total Annual Emissions

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

- Operation of Boilers #1, #2, and #4 at full capacity for 8,760 hours/year each;
- Operation of Fire Pump #1 and Generator #1 for 100 hours/year each; and
- Drying 108.05 MMBF/year in the kilns.

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

	PM	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Boiler #1	27.0	27.0	2.3	36.0	54.0	1.5
Boiler #2	27.0	27.0	2.3	36.0	54.0	1.5
Boiler #4	58.3	58.3	5.4	86.4	129.6	3.7
Fire Pump #1	–	–	–	0.4	0.1	–
Generator #1	–	–	–	0.3	0.1	–
Kilns #1 - #11	–	–	–	–	–	122.1
Total TPY	**112.3**	**112.3**	**10.0**	**159.1**	**237.8**	**128.8**

Pollutant	**Tons/year**
Single HAP	9.9
Total HAP	24.9

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 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_2e).

The quantity of CO_2e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use;
- 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

IFP previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-409-71-O-A, issued on 1/19/01). An additional ambient air quality analysis is not required for this Part 70 License.

ORDER

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

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

The Department hereby grants the Part 70 License A-409-70-F-R/A pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to IFP pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. 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 *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R.

ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

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

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

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 C.M.R. ch. 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 C.M.R. ch. 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

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

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

Permit Shield Table

Source	Citation	Description	Basis for Determination
Facility	06-096 C.M.R. ch. 134	VOC RACT	Non-exempt equipment emits less than 40 tpy.
Fire Pump #1 & Generator #1	06-096 C.M.R. ch. 138	NO_x RACT	Emergency engines exempt per § (1)(B)(2)
All Boilers	40 C.F.R. Part 60, Subpart D	NSPS for Fossil-Fuel-Fired Steam Generators	Maximum heat input for each boiler less than 250 MMBtu/hr
All Boilers	40 C.F.R. Part 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units	Maximum heat input for each boiler less than 100 MMBtu/hr
All Boilers	40 C.F.R. Part 60, Subpart Dc	NSPS for Small Industrial-Commercial-Institutional Steam Generating Units	Each of these boilers commenced construction prior to June 9, 1989.
Fire Pump #1 & Generator #1	40 C.F.R. Part 60, Subpart IIII	NSPS for Stationary Compression Ignition Internal Combustion Engines	Units were constructed prior to the applicability date.
All Boilers	40 C.F.R. Part 63, Subpart DDDDD	NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters	Facility is not a major source of HAP.
Facility	40 C.F.R. Part 64	Compliance Assurance Monitoring	Facility does not contain any equipment that meets CAM requirements.
Facility	40 C.F.R. Part 98	Mandatory Greenhouse Gas Reporting	Facility does not contain any source category listed in Tables A-3 or A-4 of the rule and facility does not have the potential to emit more than 25,000 metric tons of CO_2e.

[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 three 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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. § 347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140. [06-096 C.M.R. ch. 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 C.M.R. ch. 140] **Enforceable by State-only**

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 140]

(8) 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 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 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. 140] **Enforceable by State-only**

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 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. 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

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

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) **Boilers #1 and #2**

A. Boilers #1 and #2 are licensed to fire biomass and chipped pallets. The chipped pallets fired in Boilers #1 and #2 shall not be coated, painted, or treated in any way, and all fasteners shall be removed. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

B. Boilers #1 and #2 shall each not exceed an annual fuel usage of 20,000 ton/year (12-month rolling total basis) of biomass at an assumed moisture of 50% by weight. IFP shall keep records of fuel usage in each boiler on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

C. Boilers #1 and #2 Emission Limits

1. Emissions from Boilers #1 and #2 shall each not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.30	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable

2. Emissions from Boilers #1 and #2 shall each not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	6.17	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
PM_{10}	6.17	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
SO_2	0.51	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
NO_x	8.22	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
CO	12.34	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
VOC	0.35	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable

3. Visible emissions from Stack #1 (Boilers #1 and #2) shall not exceed 30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to demonstrate compliance by complying with all of the following work practice standards.

   a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler (Boilers #1 and #2).

   b. IFP shall develop and implement a written startup and shutdown plan for Boilers #1 and #2.

   c. Boilers #1 and #2 shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

   For the purposes of this license, startup and shutdown of Boilers #1 and #2 are defined as follows:

   A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber temperature exceeds 1,600 ºF. The total duration of this period shall not exceed four (4) hours.

   A *shutdown period* is defined as a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four (4) hours.

   [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

D. Compliance Methods

Upon request by the Department, IFP shall perform testing to demonstrate compliance with the emission limits for Boilers #1 and #2 using test methods approved by the Department. [06-096 C.M.R. ch. 140]

E. Periodic Monitoring

IFP shall operate, record data, and maintain records from the following periodic monitors for Boilers #1 and #2 (each):

1. Hours of operating time on a monthly and calendar year total. [06-096 C.M.R. ch. 137]
2. Amount of biomass (tons) fired in each boiler on a monthly, 12-month rolling total, and calendar year total. Biomass fuel usage may be calculated from steam flow. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
3. Percent oxygen (% O_2) monitored continuously and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 138 § (3)(L)(2)(c)]
4. Records of maintenance activities performed on each boiler. [06-096 C.M.R. ch. 140, BPT]
5. Records of annual boiler tune-ups. [06-096 C.M.R. ch. 138, § (3)(L)(2)]
6. Records of the date, time, and duration of all startups, shutdowns, and malfunctions for each boiler. [06-096 C.M.R. ch. 140, BPT]

(15) **Boiler #4**

A. Boiler #4 is licensed to fire biomass and chipped pallets. The chipped pallets fired in Boiler #4 shall not be coated, painted, or treated in any way, and all fasteners shall be removed. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

B. Boiler #4 shall not exceed an annual fuel usage of 48,000 ton/year (12-month rolling total basis) of biomass at an assumed moisture of 50% by weight. IFP shall keep records of fuel usage in Boiler #4 on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

C. Emissions of particulate matter from Boiler #4 shall be controlled by the operation and maintenance of two multi-cyclones operated in series during all operating times. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

D. IFP shall operate and maintain an opacity monitor (non-specification) and an oxygen monitor on Boiler #4. Records of opacity and oxygen (O_2) shall be maintained by IFP with readings logged at least once per 4-hour period. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

E. Boiler #4 Emission Limits

1. Emissions from Boiler #4 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.27	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable

2. Emissions from Boiler #4 shall each not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	13.31	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
PM_{10}	13.31	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
SO_2	1.23	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
NO_x	19.72	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
CO	29.58	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable
VOC	0.84	06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)	Federally Enforceable

3. Visible emissions from Stack #3 (Boiler #4) shall not exceed 30% opacity on a six (6) minute block average basis, except for periods of startup, shutdown, and malfunction during which time IFP may elect to demonstrate compliance by complying with all of the following work practice standards.

   a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for Boiler #4.

   b. IFP shall develop and implement a written startup and shutdown plan for Boiler #4.

   c. Boiler #4 shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

For the purposes of this license, startup and shutdown of Boiler #4 are defined as follows:

A *startup period* is defined as a period of time commencing when fuel is first fired in the boiler and ending when the combustion chamber temperature exceeds 1,925 ^{o}F. The total duration of this period shall not exceed four (4) hours.

A *shutdown period* is defined as a period of time commencing when fuel is no longer being fed into the boiler and ending when ash is no longer exiting the ash handling system. The total duration of this period shall not exceed four (4) hours.

[06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]

F. Compliance Methods

Upon request by the Department, IFP shall perform testing to demonstrate compliance with the emission limits for Boiler #4 using test methods approved by the Department. [06-096 C.M.R. ch. 140]

G. Periodic Monitoring

IFP shall operate, record data, and maintain records from the following periodic monitors for Boiler #4:

1. Hours of operating time on a monthly and calendar year total. [06-096 C.M.R. ch. 137]
2. Amount of biomass (tons) fired on a monthly and calendar year total. Biomass fuel usage may be calculated from steam flow. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
3. Opacity from Stack #3 monitored continuously by a non-specification opacity monitor and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
4. Percent oxygen (% O_2) monitored continuously and recorded at least once per 4-hour period. [06-096 C.M.R. ch. 138 § (3)(L)(2)(c) and 06-096 C.M.R. ch. 115, BACT (A-409-77-3-M)]
5. Records of maintenance activities performed on Boiler #4 and the multi-cyclones. [06-096 C.M.R. ch. 140, BPT]
6. Records of annual boiler tune-ups. [06-096 C.M.R. ch. 138, § (3)(L)(2)]
7. Records of the date, time, and duration of all startups, shutdowns, and malfunctions. [06-096 C.M.R. ch. 140, BPT]

(16) **NESHAP: 40 C.F.R. Part 63, Subpart JJJJJJ**

IFP shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1, #2, and #4 including, but not limited to, the following:

A. Boiler Tune-Up Program

1. A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

2. IFP shall conduct annual tune-ups on Boilers #1, #2, and #4 in accordance with both 06-096 C.M.R. ch. 138 and 40 C.F.R. Part 63, Subpart JJJJJJ.

3. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

   a. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. [40 C.F.R. § 63.11223(b)(1)]
   b. 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)]
   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. [40 C.F.R. § 63.11223(b)(3)]
   d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
   e. 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)]
   f. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. [40 C.F.R. § 63.11223(b)(7)]

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

   a. 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;
   b. A description of any corrective actions taken as part of the tune-up of the boiler; and
   c. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

B. Compliance Report

A compliance report shall be prepared by March 1st every two years which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or 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)]

1. Company name and address;
2. A statement of whether the source has complied with all the relevant requirements of this Subpart;
3. 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;
4. The following certifications, as applicable:
   a. "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."
   b. "No secondary materials that are solid waste were combusted in any affected unit."
   c. "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."

C. Recordkeeping

1. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225I]:
   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.

2. 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) **NO_x RACT**

In accordance with 06-096 CMR 138, §3(L)(2), IFP shall comply with the following tune-up record keeping requirements for the annual tune-ups required for Boilers #1, #2, and #4:

A. A tune-up procedure file must be kept on-site and made available to the Department upon request.
B. An oxygen/carbon monoxide curve or an oxygen/smoke curve must be kept on file.
C. Once the optimum excess oxygen setting has been determined, IFP must periodically verify that the setting remains at that value.
D. If the oxygen level found is substantially higher than the value provided by the combustion unit manufacturer, IFP must improve the fuel and air mixing, thereby allowing operation with less air.

(18) **Fire Pump #1 and Generator #1**

A. Allowable Operation and Fuels

1. Fire Pump #1 and Generator #1 are licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT (A-409-70-A-I)]
2. Fire Pump #1 and Generator #1 shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 140, BPT]

B. Fuel Sulfur Content

1. The fuel oil sulfur content for Fire Pump #1 and Generator #1 shall be limited to 0.0015% sulfur. [06-096 C.M.R. ch. 140, BPT (A-409-70-D-R)] **Enforceable by State-only**

2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 C.M.R. ch. 140, BPT (A-409-70-D-R)] **Enforceable by State-only**

C. Emissions shall not exceed the following limits:
[06-096 C.M.R. ch. 140, BPT (A-409-70-A-I) & (A-409-70-D-R)]
Enforceable by State-only

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Fire Pump #1	0.62	0.62	–	8.82	1.90	0.70
Generator #1	0.37	0.37	–	5.29	1.14	0.42

D. Visible Emissions

Fire Pump #1 and Generator #1 are each subject to a visible emissions limit of 20% opacity on a six (6) minute block average basis, except for periods of startup during which time IFP may elect to comply with the following work practice standards:

a. IFP shall maintain a log (written or electronic) of the date, time, and duration of all startups for Fire Pump #1 and Generator #1.

b. Fire Pump #1 and Generator #1 shall be operated in accordance with the manufacturer's emission-related operating instructions.

c. IFP shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

d. Fire Pump #1 and Generator #1 shall each be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

E. Fire Pump #1 and Generator #1 shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:

1. IFP shall meet the following operational limitations for Fire Pump #1 and Generator #1 (each):

   a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   Records shall be maintained documenting compliance with the operational limitations.

   [40 C.F.R. § 63.6603(a) and Table 2(d); and 06-096 C.M.R. ch. 140, BPT]

2. Oil Analysis Program Option
   IFP has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, IFP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R.§ 63.6625(i)]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on the/each engine. [40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]

   b. IFP shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

5. Operation and Maintenance
   The engine(s) shall be operated and maintained according to the manufacturer's emission-related written instructions, or IFP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

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

(19) **Drying Kilns**

A. IFP shall be limited to drying a total of 108,050,000 BF (108.05 MMBF) of lumber per year in the facility's drying kilns based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BACT (A-409-77-2-A)]

B. IFP shall maintain records indicating the quantity of wood dried in BF and VOC emissions. VOC emissions shall be calculated using an emission factor of 2.26 pounds of VOC per 1,000 BF. The kiln record shall be maintained on a monthly and a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-409-77-2-A)]

(20) **Cyclones and General Process Emissions**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

(21) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 140, BPT]

(22) **Semiannual Reporting**

A. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 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 Department within seven calendar days of the due date.
C. Each semiannual report shall include a summary of the periodic monitoring required by this license.
D. 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.

[40 C.F.R. ch. 140]

(23) **Annual Compliance Certification**

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

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

(24) **Annual Emission Statement**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, IFP shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

B. IFP shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of biomass fired (at 50% moisture) in Boilers #1, #2, and #4 on a monthly basis;
2. The amount of distillate fuel fired in Fire Pump #1 and Generator #1 on an annual basis;
3. The sulfur content of the distillate fuel fired in Fire Pump #1 and Generator #1;
4. Kiln throughput on a monthly basis;
5. Hours of operation for each emission unit on a monthly basis.

[06-096 C.M.R. ch. 137]

C. In reporting year 2020 and every third year thereafter, IFP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). IFP shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(25) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

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

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

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

(27) **Asbestos Abatement**

When undertaking Asbestos abatement activities, IFP shall comply with the *Standard for Asbestos Demolition and Renovation,* 40 C.F.R. Part 61, Subpart M.

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

A. IFP shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 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 C.M.R. ch. 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**

(29) **New Source Review**

IFP is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-409-70-F-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 5 DAY OF November , 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/4/18
Date of application acceptance: 5/7/18

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

Filed
NOV 0 5 2018
State of Maine
Board of Environmental Protection