



DEPARTMENT ORDER

Irving Forest Products, Inc.
Aroostook County
Nashville Plantation, Maine
A-314-77-7-A

Departmental
Findings of Fact and Order
New Source Review
NSR #7

FINDINGS OF FACT

After review of the air emission license 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 (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Irving Forest Products, Inc. (Irving)
LICENSE TYPE	06-096 C.M.R. ch. 115, Minor Modification
NAICS CODES	321912 (Cut Stock, Resawing Lumber, and Planing), 321113 (Sawmills), and 321999 (All Other Miscellaneous Wood Product Manufacturing)
NATURE OF BUSINESS	Wood Products
FACILITY LOCATION	1218 Portage Road, Nashville Plantation, ME 04732

B. NSR License Description

Irving Forest Products, Inc. (Irving) has requested a New Source Review (NSR) license amendment in order to make the changes discussed in the table below.

<u>Requested Change</u>	<u>NSR License(s) Affected</u>
Remove Boiler #6 and all applicable references and requirements pertaining to the unit from all of the facility's previously issued NSR licenses where it is referenced	A-314-77-3-A (November 6, 2016) and A-314-77-4-M (December 5, 2017)
Reclassify Boiler #7 from a seasonal boiler to an existing oil-fired boiler (based on date of manufacture) under <i>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boiler Area Sources</i> , 40 C.F.R. Part 63, Subpart JJJJJ	A-314-77-5-A (January 17, 2019)

Requested Change	NSR License(s) Affected
Remove the requirement that Boiler #7 only be permitted to operate until the end of the tuning and adjustment period for Boiler #6	A-314-77-5-A (January 17, 2019)
Address the installation of a 400-kW steam turbine	N/A
Increase the biomass fuel limit for Boiler #4 and #5 (combined) from 35,000 tons/year to 37,450 tons/year on a 12-month rolling total basis	A-314-77-1-A (October 25, 2013)

C. Emission Equipment

The following equipment is addressed in this NSR license amendment:

Fuel Burning Equipment

Equipment	Max. Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % sulfur	Mfr. Date	Install. Date	Stack #
Boiler #4	25.7 [each]	5,711 lb/hr [each] ¹	Biomass, negl. Spill material ² , 0.0015%	1997	2014	4
Boiler #5				2008	2014	5
Boiler #7	13.5	96.5 gal/hr	Distillate fuel, 0.0015%	1982	2018	7

1. At 4,500 Btu/lb and 50% moisture
2. Oil soaked sawdust, wood chips, and absorbent pads from on-site spill clean-up activities, up to 5,000 gal/yr, total

Boiler #6, which was initially approved for installation in NSR License A-314-77-3-A (November 6, 2016) and received an extension to begin construction under A-314-77-4-M (December 5, 2017), will not be installed at the facility, and all applicable requirements pertaining to Boiler #6 from A-314-77-3-A (November 6, 2016), A-314-77-4-M (December 5, 2017), and A-314-77-5-A (January 17, 2019) shall be removed as part of this NSR license amendment.

Irving is also planning to install a 400-kW steam turbine to generate electricity from the steam coming directly from the boilers. The resulting steam coming from the turbine will be at a lower pressure appropriate for distribution to the facility's Lumber Drying Kilns. Any potential increases in steam demand or emissions resulting from installation of this unit have been addressed by the facility's request to increase the biomass fuel limit for Boilers #4 and #5 (combined). This unit is otherwise not subject to any licensing requirements and will not be addressed further in this NSR license amendment.

D. Definitions

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.

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.

Irving's application for the removal of Boiler #6 licensing requirements, re-designation of Boiler #7 from a seasonal boiler to an existing oil-fired boiler under 40 C.F.R. Part 63, Subpart JJJJJ, removal of the requirement that Boiler #7 only be operated until the end of the tuning and adjustment period for Boiler #6, installation of a 400 kW steam turbine, and an increase in the biomass fuel limit for Boilers #4 and #5 (combined) does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing, or recordkeeping requirements, except for such requirements for Boiler #6 which was never installed and is being removed from the license.

The modification of a major source is considered a major or minor modification based on whether or not expected emissions increases exceed the "Significant Emission Increase" levels as given in *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. For a major stationary source, the expected emissions increase from each new, modified, or affected unit may be calculated as equal to the difference between the post-modification projected actual emissions and the baseline actual emissions for each NSR regulated pollutant.

The emissions presented below are for this NSR license only; however, in light of the proposed changes the Department has reviewed the emissions increases for all previous NSR licenses being amended by this NSR license and documentation demonstrating that each one will remain a minor modification under 06-096 C.M.R. ch. 115 is on file with the Department.

1. Baseline Actual Emissions

Baseline actual emissions (BAE) for existing affected emission units are equal to the average annual emissions from any consecutive 24-month period within the ten years prior to submittal of a complete license application. Irving has proposed using 10/2014 – 09/2016 as the 24-month baseline period from which to determine baseline actual emissions for all pollutants for emission units affected as part of this project.

The BAE for new equipment (Boiler #7 and the third Lumber Drying Kiln) are considered to be zero for all pollutants. The BAE for the existing affected emission units (Boilers #4 and #5 and the first two Lumber Drying Kilns) are presented in the table below.

Baseline Actual Emissions (10/2014 – 09/2016 Average)

Equipment	PM (tpy)	PM₁₀ (tpy)	PM_{2.5} (tpy)	SO₂ (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)
Boilers #4 and #5	40.22	40.22	28.16	3.35	29.5	80.45	2.3
Lumber Drying Kilns (2)	---	---	---	---	---	---	55.0
Total	40.22	40.22	28.16	3.35	29.5	80.45	57.3

2. Projected Actual Emissions

Projected actual emissions (PAE) are the maximum actual annual emissions anticipated to occur in any one of the five years (12-month periods) following the date existing units resume regular operation after the project or any one 12-month period in the ten years following if the project involves increasing the unit’s design capacity or its potential to emit (PTE) of a regulated pollutant.

Irving has proposed federally-enforceable limits restricting the amount of biomass fired in Boilers #4 and #5 to 37,450 ton/year (based on 50% moisture content and a heat content of 4,500 Btu/lb); the amount of distillate fuel fired in Boiler #7 to 250,000 gal./year, and the three Lumber Drying Kilns to 93.0 ton/year of VOC emissions (based on a throughput limit of 145 million board-feet (MMBF)/year of lumber). Therefore, PAE for Boilers #4, #5, and #7 and the three Lumber Drying Kilns is based on the total potential emissions from each unit considering each unit’s federally-enforceable limits.

Projected actual emissions from the affected equipment are shown below.

Projected Actual Emissions

Equipment	PM (tpy)	PM₁₀ (tpy)	PM_{2.5} (tpy)	SO₂ (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)
Boilers #4 and #5	50.56	53.42	35.39	4.21	37.08	101.12	2.86
Boiler #7	1.4	1.4	0.16	0.03	2.5	0.7	0.03
Lumber Drying Kilns (3)	---	---	---	---	---	---	93.0
Total	51.96	54.82	35.55	4.24	39.58	101.82	95.89

3. Emissions Increases

Emissions increases are calculated by subtracting BAE from the PAE. The emission increases are then compared to the significant emissions increase levels.

Pollutant	Baseline Actual Emissions 10/14 – 9/16 (ton/year)	Projected Actual Emissions (ton/year)	Net Emissions Increase (ton/year)	Significant Emissions Increase Levels (ton/year)
PM	40.22	51.96	11.74	25
PM ₁₀	40.22	54.82	14.6	15
PM _{2.5}	28.16	35.55	7.39	10
SO ₂	3.35	4.24	0.89	40
NO _x	29.5	39.58	10.08	40
CO	80.45	101.82	21.37	100
VOC	57.3	95.89	38.59	40

4. Classification

Since emissions increases do not exceed significant emissions increase levels, this NSR license is determined to be a minor modification under *Minor and Major Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115. An application to incorporate the requirements of this NSR license into the Part 70 air emission license shall be submitted no later than 12 months from commencement of operations associated with the 400-kW steam turbine project.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

Before addressing the proposed license changes, a project description is included to provide additional background regarding the proposed licensed changes.

Project Background and Description

Since 2014, Irving has been operating Boilers #4 and #5 to provide heat for the mill facility and log pond and steam for the two existing Lumber Drying Kilns. In late 2016, Irving proposed to install a new Lumber Drying Kiln in order to increase lumber production capacity, and a new biomass-fired boiler, Boiler #6, to provide the additional steam necessary to operate all three Lumber Drying Kilns and still provide sufficient heat to the mill building during the winter months. This proposal was approved in NSR License A-314-77-3-A (NSR #3) on November 6, 2016. Irving has since installed the third Lumber Drying Kiln but has not installed Boiler #6. Irving subsequently applied for and received another NSR License, A-314-77-4-M (NSR #4) on December 5, 2017, which allowed the facility to begin construction on Boiler #6 no later than November 6, 2019.

In NSR License A-314-77-5-A (January 17, 2019), Irving licensed the installation of a seasonal, distillate fuel-fired package boiler, Boiler #7, to use during the winter of 2018-2019 to provide the additional steam necessary to heat the log pond and sawmill and to provide other supplemental steam as needed to maintain full facility operation. At the time, it was intended that Boiler #7 would eventually be replaced by Boiler #6. Since then, Irving has decided to keep Boiler #7 and no longer plans to install Boiler #6. In addition to removing Boiler #6 as a licensed emission unit and removing all applicable requirements pertaining to Boiler #6, Irving has proposed to use this NSR license amendment to reclassify Boiler #7 as an existing oil-fired boiler under 40 C.F.R. Part 63, Subpart JJJJJ, address the installation of a 400-kW steam turbine, and increase the biomass fuel limit for Boilers #4 and #5 combined from 35,000 tons/year to 37,450 tons/year on a 12-month rolling total basis.

B. Boilers #4 and #5

As part of this amendment, Irving has proposed to increase the biomass fuel limit for Boilers #4 and #5 combined from 35,000 tons/year to 37,450 tons/year, based on a 12-month rolling total and 50% moisture. This change will not modify the facility's licensed lb/hr emission limits, nor will it affect the units' regulatory requirements; therefore, the Department approves Irving's fuel limit increase request provided that Irving maintain documentation demonstrating compliance with the new fuel limit on a monthly and 12-month rolling total basis.

Documentation demonstrating compliance with Boilers' #4 and #5 fuel limit shall include records of fuel use kept on a 50% moisture basis using the formula below, when necessary, to convert fuel use records to 50% moisture. Biomass moisture content shall be measured once per month. Records of fuel use shall be kept on a monthly and 12-month rolling total basis and shall be calculated based on actual steam production or other methods approved by the Department.

$$\text{Tons biomass at 50\%} = (\text{Tons of biomass at M\%}) \times [(100-M)/50]$$

Where M = the actual moisture content of the biomass fired

C. Boiler #7

Irving has requested to reclassify Boiler #7 as an existing oil-fired boiler under 40 C.F.R. Part 63, Subpart JJJJJ. Previously, Boiler #7 had been classified as an existing seasonal boiler. As a result, some of the requirements of 40 C.F.R. Part 63, Subpart JJJJJ will change. This change will not affect the unit's licensed emission limits or fuel limit.

The updated requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boiler #7 are the following:

1. Compliance Dates, Notifications, and Work Practice Requirements

a. Initial Notification of Compliance

An Initial Notification submittal to EPA was due within 120 days after startup of Boiler #7. Irving submitted this notification to EPA on January 23, 2019. [40 C.F.R. §§ 63.11196(c) and 63.11225(a)(2)]

b. Startup and Shutdown

Irving shall minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If the manufacturer's recommended procedures are not available, Irving shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [40 C.F.R. § 63.11201(b)]

c. 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 the boiler. As an existing oil-fired boiler, Boiler #7 shall be subject to a tune-up frequency of every two years, with the first tune-up to take place no later than 30 days after startup of the unit. Irving completed the initial tune-up of Boiler #7 on January 18, 2019. [40 C.F.R. §§ 63.11210(k)(2) and 63.11223(a) and 40 C.F.R. Part 63, Subpart JJJJJ, Table 2]

(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. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]

(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. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]

(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 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 [40 C.F.R. § 63.11223(b)(6)]:
- (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.
- (5) After conducting the initial tune-up, a Notification of Compliance Status shall be submitted to EPA no later than 120 days after startup of the unit. Irving submitted their Notification of Compliance Status to EPA via CEDRI on February 20, 2019. [40 C.F.R. §§ 63.11214(b) and 63.11225(a)(4)]

d. 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 to the EPA upon request. The report must include the items contained in 40 C.F.R. §§ 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; and
- (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 40 C.F.R. §§ 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.”

e. Energy Assessment

Boiler #7 is not subject to the energy assessment requirement. Irving previously completed a one-time energy assessment at the facility on June 6, 2016, had a comprehensive report generated on June 22, 2016, and submitted a Notification of Compliance Status to EPA on August 8, 2017. The energy use systems at the facility have not substantially changed since the one-time energy assessment was previously completed; therefore, Irving is not required to complete an energy assessment on Boiler #7. [40 C.F.R. § 63.11214(c)]

2. Recordkeeping

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

- a. Copies of notifications and reports with supporting compliance documentation;
- b. Identification of each boiler, date of tune-up, procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned;
- c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
- d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

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

D. Incorporation Into the Part 70 Air Emission License

The requirements in this 06-096 C.M.R. ch. 115 NSR license amendment shall apply to the facility upon issuance. Per *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140, § 1.C.(8), for a modification at the facility that has undergone NSR requirements or been processed through 06-096 C.M.R. ch. 115, the source must apply for an amendment to their Part 70 license within one year of commencing the proposed operations, as provided in 40 C.F.R. Part 70.5.

E. Annual Emissions

Irving shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- A biomass fuel limit of 37,450 tons/year (including sawdust, wood chips, and/or absorbent pads with up to 5,000 gal/yr of absorbed distillate fuel) for Boilers #4 and #5 combined;
- A distillate fuel limit of 250,000 gal/yr for Boiler #7;
- 100 hours/year of operation for Fire Pump #1;
- A throughput limit of 145 MMBF/year for the three Lumber Drying Kilns combined;
- A use limit of 3,080 gal/yr of SAPTEK 200 for the sawmill; and
- 8,760 hours/year of operation for the CEC Screen Engine.

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

	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	CO	VOC
Boilers #4 and #5 (combined)	50.6	53.4	35.4	4.2	37.1	101.1	2.9
Boiler #7	1.4	1.4	0.2	0.1	1.9	0.5	0.1
Fire Pump #1	0.1	0.1	---	0.1	0.4	0.1	0.1
Lumber Drying Kilns	---	---	---	---	---	---	93.0
Sawmill	---	---	---	---	---	---	10.2
CEC Screen Engine	0.3	0.3	---	0.1	12.2	2.6	1.0
Total TPY	52.4	55.2	35.6	4.5	51.6	104.3	107.3

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

Irving previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. The ambient air quality analysis was documented in NSR License A-314-77-1-A, dated October 25, 2013. The Department finds that an additional ambient air quality analysis is not required for this NSR license amendment and that the requirement to conduct an updated ambient air quality analysis should Boiler #7 not be removed from the facility's air emission license prior to 18 months after the end of the unit's tuning and adjustment period, included in A-314-77-5-A (January 17, 2019), is no longer required given that Boiler #6 has been removed from the facility's license.

The findings above are based on the removal of Boiler #6 as a licensed emission unit, the increased stack height of Boiler #7 (65 feet) as compared to the previously modeled Boiler #2 (26 feet), and the decreased heat input capacity of Boiler #7 (13.5 MMBtu/hr) as compared to the previously modeled Boiler #2 (30 MMBtu/hr). This finding does not preclude the Department from requesting an updated ambient air quality analysis should Irving propose to make additional changes to the facility in the future.

ORDER

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

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

The Department hereby grants NSR License Amendment A-314-77-7-A pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the specific conditions below.

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

SPECIFIC CONDITIONS

The following shall replace Condition (1)B. of NSR License A-314-77-1-A (October 25, 2013):

(1) **Boilers #4 and #5** (25.7 MMBtu/hr each)

B. Fuel

1. Total fuel use for Boilers #4 and #5 shall not exceed 37,450 tons/year of biomass (based on 50% moisture content and a heat content of 4,500 Btu/lb), or equivalent, based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BACT]

2. Fuel use records for Boilers #4 and #5 shall be kept on a 50% moisture basis using the formula below, when necessary, to convert fuel use records to 50% moisture. Fuel moisture content shall be measured at least once per month. [06-096 C.M.R. ch. 115, BPT]

$$\text{Tons biomass at 50\%} = (\text{Tons of biomass at M\%}) \times [(100-M)/50]$$

Where M = the actual moisture content of the biomass fired

3. Records of annual fuel use, calculated based on actual steam production or other method approved by the Department, shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]

The following shall replace Condition (1) of NSR License A-314-77-3-A (November 6, 2016):

- (2) Irving is licensed to install and operate the *new* Lumber Drying Kiln. [06-096 C.M.R. ch. 115, BACT]

Condition (2) of NSR License A-314-77-3-A (November 6, 2016), all Conditions of NSR License A-314-77-4-M (December 5, 2017), and Condition (3) of NSR License A-314-77-5-A (January 17, 2019) are no longer applicable and are hereby deleted.

The following shall replace Condition (1) of NSR License A-314-77-5-A (January 17, 2019):

(3) **Boiler #7**

A. Fuel Use and Operation

1. Fuel Use

- a. Total fuel use for Boiler #7 shall not exceed 250,000 gal/yr of distillate fuel, based on a 12-month rolling total. [06-096 C.M.R. ch. 115, BACT]
 - b. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for used in Boiler #7. [06-096 C.M.R. ch. 115, BACT]
 - c. Compliance with the above shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered. Fuel use records shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]
2. The Boiler #7 stack shall be no less than 65 feet above ground level, which is equivalent to 60% of GEP stack height. [06-096 C.M.R. ch. 115, § 7.A.]

B. Emissions from Boiler #7 shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #7	PM	0.08	06-096 C.M.R. ch. 115, BACT

C. Emissions from Boiler #7 shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #7	1.08	1.08	0.02	1.93	0.54	0.02

D. Visible emissions from Boiler #7 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT (before 1/1/2020) and 06-096 C.M.R. ch. 101, § 3.A.(2) (after 1/1/2020)]

E. 40 C.F.R. Part 63, Subpart JJJJJ

Irving shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boiler #7 including, but not necessarily limited to, the following:

1. Compliance Dates, Notifications, and Work Practice Requirements

a. Startup and Shutdown

Irving shall minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If the manufacturer's recommended procedures are not available, Irving shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [40 C.F.R. § 63.11201(b)]

b. 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 the boiler. As an existing oil-fired boiler, Boiler #7 shall be subject to a tune-up frequency of every two years. [40 C.F.R. §§ 63.11210(k)(2) and 63.11223(a) and 40 C.F.R. Part 63, Subpart JJJJJ, Table 2]

- (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. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 - (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. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
 - (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 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 [40 C.F.R. § 63.11223(b)(6)]:
- (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.

c. 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 to the EPA upon request. The report must include the items contained in 40 C.F.R. §§ 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; and
- (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 40 C.F.R. §§ 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."

2. Recordkeeping

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

- a. Copies of notifications and reports with supporting compliance documentation;
- b. Identification of each boiler, 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.

Irving Forest Products, Inc.
Aroostook County
Nashville Plantation, Maine
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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)]

The following are new Conditions in this NSR license amendment:

- (4) Irving is licensed to install and operate a *new* 400-kW steam turbine. [06-096 C.M.R. ch. 115, BACT]
- (5) Irving shall submit an application to incorporate this NSR license amendment into the facility's Part 70 air emission license no later than 12 months from commencement of the requested operation. [06-096 C.M.R. ch. 140 § 1(C)(8)]

DONE AND DATED IN AUGUSTA, MAINE THIS 24th DAY OF June, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
GERALD D. REID, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 9, 2019

Date of application acceptance: May 10, 2019

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

