



DEPARTMENT ORDER

**Pleasant River Lumber Company  
Piscataquis County  
Dover Foxcroft, Maine  
A-704-71-K-A**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #3**

**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 (Department) finds the following facts:

**I. REGISTRATION**

A. Introduction

Pleasant River Lumber Company (Pleasant River) was issued Air Emission License A-704-71-H-R/A on March 18, 2014, for the operation of emission sources associated with their sawmill facility. The license was subsequently amended on October 27, 2017 (A-704-71-I-A) and on March 6, 2020 (A-704-71-J-A).

Pleasant River has requested an amendment to their license in order to replace the existing Boiler #3 with a new unit.

The equipment addressed in this license amendment is located at 42 Milo Rd, Dover Foxcroft, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

**Boilers**

<b>Equipment</b>	<b>Max. Capacity (MMBtu/hr)</b>	<b>Maximum Firing Rate</b>	<b>Fuel Type, % sulfur</b>	<b>Date of Manuf.</b>	<b>Date of Install.</b>	<b>Stack #</b>
Boiler #3 (new)	6.3	45.0 gal/hr	distillate fuel, 0.0015%	2022	2023	#3
Boiler #3 (old) *	20.9	149.4	distillate fuel, 0.0015%	1964	N/A	#3

\* This equipment is removed from the facility.

C. 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.

Records or Logs mean either hardcopy or electronic records.

D. Application Classification

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

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emission” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emission Levels
PM	27.2	27.2	0	100
PM <sub>10</sub>	24.7	24.7	0	100
SO <sub>2</sub>	3.5	2.7	-0.8	100
NO <sub>x</sub>	35.9	34.8	-1.1	100
CO	63.9	63.9	0	100
VOC	49.4	49.4	0	100

This modification is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual throughput limit on the kilns, the facility is licensed as follows:

- As a synthetic minor source of air emissions for VOC, because Pleasant River is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

## II. BEST PRACTICAL TREATMENT (BPT)

### A. Introduction

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

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

### B. Boiler #3

Boiler #3 is replacing the previously licensed Boiler #3 (old). Steam from Boiler #3 will supplement steam from Boiler #3A during periods of high demand. Boiler #3 is rated at 6.3 MMBtu/hr and fires distillate fuel. The boiler will be installed in 2023 and exhaust through its own stack. As the old Boiler #3 was, the new Boiler #3 will be subject to a fuel limit of 150,000 gallons of distillate fuel per year on a 12-month rolling total basis.

#### 1. BACT Findings

Pleasant River submitted a BACT analysis for control of emissions from Boiler #3.

##### a. Emission Limits

The BACT emission limits for Boiler #3 were based on the following:

##### Distillate Fuel

PM/PM <sub>10</sub>	– 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT
SO <sub>2</sub>	– based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
NO <sub>x</sub>	– 20 lb/1000 gal from on AP-42, Table 1.3-1, dated 5/10
CO	– 5 lb/1000 gal from on AP-42, Table 1.3-1, dated 5/10
VOC	– 0.34 lb/1000 gal from on AP-42, Table 1.3-3, dated 5/10
Visible Emissions	– 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Boiler #3 are the following:

Unit	Pollutant	lb/MMBtu				
Boiler #3	PM	0.08				
Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3	0.50	0.50	0.01	0.90	0.23	0.02

2. Visible Emissions

Visible emissions from Boiler #3 shall not exceed 20% opacity on a six-minute block average basis.

3. Periodic Monitoring

Periodic monitoring for Boiler #3 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

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

Due to the size, Boiler #3 is 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]

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

Boiler #3 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ. The unit is considered a new boiler rated less than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website: <https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source>.

a. Compliance Dates, Notifications, and Work Practice Requirements

(1) Initial Notification of Compliance

An Initial Notification submittal to EPA is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]

(2) Boiler Tune-Up Program

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

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

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with Less Frequent Tune-up Requirements" <b>Boiler #3</b>	Every 2 years

[40 C.F.R. § 63.11223(a) and Table 2]

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

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

(iv) Tune-Up Report: A tune-up report shall be maintained onsite and, submitted to the Department and/or EPA upon request. The report shall contain the following information:

1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
2. A description of any corrective actions taken as part of the tune-up of the boiler; and
3. 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)]

(3) Compliance Report

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

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

b. Recordkeeping

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

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

Records shall be in a form suitable and readily available for expeditious review. [40 C.F.R. § 63.11225(d)]

C. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Firing 150,000 gal/yr distillate fuel in Boiler #3;
- Firing in Boiler #3A the equivalent of 18,500 tons/year of biomass with an average moisture content of 36.7% by weight; and
- An annual limit of 47.5 tons/year of VOC from the kilns.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #3A	26.3	23.8	2.6	33.3	63.5	1.8
Boiler #3	0.9	0.9	0.1	1.5	0.4	0.1
Drying Kilns						47.5
<b>Total TPY</b>	<b>27.2</b>	<b>24.7</b>	<b>2.7</b>	<b>34.8</b>	<b>63.9</b>	<b>49.4</b>

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

### III. AMBIENT AIR QUALITY ANALYSIS

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

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

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

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require PRL to submit additional information and may require an ambient air quality impact analysis at that time.

### ORDER

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

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

The Department hereby grants Air Emission License Amendment A-704-71-K-A subject to the conditions found in Air Emission License A-704-71-H-R/A, in amendments A-704-71-I-A and A-704-71-J-A, and the following conditions.



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 Specific Conditions (17) and (18) of Air Emission License A-704-71-H-R/A.

(17) **Boiler #3**

A. Fuel

1. Total fuel use for Boiler #3 shall not exceed 150,000 gal/yr of distillate fuel, on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT]
2. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BACT]
3. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered or fuel used (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #3	PM	0.08	06-096 C.M.R. ch. 115, BACT

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

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3	0.50	0.50	0.01	0.90	0.23	0.02

D. Visible emissions from Boiler #3 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch.115, BACT]

(18) **Boilers #3 and #3A: NESHP 40 C.F.R. Part 63, Subpart JJJJJJ**

PRL shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #3 and #3A including, but not limited to, the following:  
[incorporated under 06-096 C.M.R. ch. 115, BPT and BACT]

- A. An Initial Notification submittal to EPA for Boiler #3 is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]
- B. The facility shall implement a boiler tune-up program for Boilers #3 and #3A. [40 C.F.R. § 63.11223]
  - 1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" <b>Boilers #3 and #3A</b>	Every 2 years

[40 C.F.R. § 63.11223(a) and Table 2]

- 2. 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. 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)]
  - 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. 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)]
  - d. Optimize total emissions of CO, consistent with manufacturer’s specifications. [40 C.F.R. § 63.11223(b)(4)]  
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)]

- e. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.  
[40 C.F.R. § 63.11223(b)(7)]
3. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. 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)]

#### C. Compliance Report

A compliance report shall be prepared by March 1<sup>st</sup> biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/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:
  - (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
  - (2) "No secondary materials that are solid waste were combusted in any affected unit."
  - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

D. Energy Assessment (Boiler #3A only)

1. A one-time energy assessment was required to be performed by a qualified energy assessor on each applicable boiler no later than March 21, 2014.  
[40 C.F.R. § 63.11196(a)(3)]
2. The energy assessment was required to include a visual inspection of the boiler system; an evaluation of operating characteristics of each affected boiler system, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from each affected boiler and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.  
[40 C.F.R. Part 63, Subpart JJJJJ, Table 2(16)]
3. A Notification of Compliance Status was required to 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(c)]

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

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

Records shall be in a form suitable and readily available for expeditious review.  
[40 C.F.R. § 63.11225(d)]

The following is a new condition of Air Emission License A-704-71-H-R/A.

- (25) If the Department determines that any parameter value pertaining to construction and operation of the proposed emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, PRL may be required to submit additional information. Upon written request from the Department, PRL shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter.  
[06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 29<sup>th</sup> DAY OF MARCH, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for  
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-704-71-H-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 9/19/22

Date of application acceptance: 9/26/22

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

