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

DEPARTMENT ORDER

Columbia Forest Products, Inc. **Aroostook County** **Presque Isle, Maine** **A-353-71-L-A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Amendment #1**

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

Columbia Forest Products, Inc. (Columbia) was issued Air Emission License A-353-71-K-N/A on April 22, 2024, for the operation of emission sources associated with their wood processing facility.

The equipment addressed in this license amendment is located at 265 Missile Street, Presque Isle, Maine.

Columbia has requested an amendment to their license in order to add an emergency generator to supply their boilers with backup power in the event of a power outage from the grid and to remove the briquette machine from their license.

B. Emission Equipment

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

Stationary Engines

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate	Date of Manuf.	Date of Install.
Boiler Generator #1	2.04 MMBtu/hr	250 kW	Distillate Fuel	14.9 gal/hr	2025	2026

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
Briquette Machine [A]	*1 ton/hr*	*None*	*Fugitive*

[A] Removed from license

C. Definitions

Biomass means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (*e.g.,* trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings). This definition also includes wood chips and processed pellets made from wood or other forest residues. Inclusion in this definition does not constitute a determination that the material is not considered a solid waste. Columbia should consult with the Department before adding any new biomass type to its fuel mix.

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 Emissions" 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 Emissions Levels
PM	36.2	36.2	0	100
PM_{10}	30.6	30.6	0	100
$PM_{2.5}$	21.9	21.9	0	100
SO_2	3.4	3.4	0	100
NO_x	31.8	32.3	+0.5	100
CO	81.5	81.6	+0.1	100
VOC	25.7	25.7	0	100

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

E. Facility Classification

With the annual fuel limit on the boilers, the production rate limit on the veneer drying process, and the operating hours restriction on the emergency generator, the facility is licensed as follows:

- As a synthetic minor source of air emissions for criteria pollutants, because Columbia is subject to license restrictions that keep facility emissions below major source thresholds for PM, PM_{10}, $PM_{2.5}$, and CO; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

Emissions of CO are licensed above 80% of the major source threshold. Therefore, this facility is classified as an "80% Synthetic Minor" for the purpose of determining the minimum required compliance inspection frequency in accordance with Maine's Compliance Monitoring Strategy.

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 Generator #1

Columbia proposes to add an emergency generator, Boiler Generator #1, to provide backup power in the event of a power outage to keep the boilers running and provide facility heating. The emergency generator is a generator set consisting of an engine and an electrical generator. Boiler Generator #1 will have an engine rated at 2.04 MMBtu/hr which fires distillate fuel. The emergency generator will be manufactured in 2025 or 2026, and the facility will provide a Certificate of Conformity once the unit is purchased.

1. BACT Findings

a. Particulate Matter (PM, PM_{10}, $PM_{2.5}$)
Columbia has proposed to fire only distillate fuel, a low ash fuel, in Boiler Generator #1. Additional add-on pollution controls are not economically feasible for an engine of this size and anticipated duration of annual usage.

The Department has determined that BACT for $PM/PM_{10}/PM_{2.5}$ emissions from Boiler Generator #1 is the emission limits listed in the table below.

b. Sulfur Dioxide (SO_2)
Columbia has proposed to fire only ultra-low-sulfur distillate fuel. The use of this fuel results in minimal emissions of SO_2, and additional add-on pollution controls are not economically feasible.

The Department has determined that BACT for SO_2 emissions from Boiler Generator #1 is the use of ultra-low-sulfur distillate fuel and the emission limits listed in the table below.

c. Nitrogen Oxides (NO_x)
Columbia considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), and using an engine certified under 40 C.F.R. Part 60, Subpart IIII.

Both SCR and SNCR are not economically feasible for an emergency engine of this size.

Columbia has specified an engine built in either 2025 or 2026, which means the unit will be certified under 40 C.F.R. Part 60, Subpart IIII.

BACT for NO_x emissions from Boiler Generator #1 is the purchase of a Tier III certified engine, following manufacturer's operating instructions, and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)
Columbia considered several control strategies for the control of CO and VOC including oxidation catalysts and thermal oxidizers.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size and duration of anticipated use of Boiler Generator #1. These controls were determined to be economically infeasible.

BACT for CO and VOC emissions from Boiler Generator #1 is purchasing a Tier III certified engine, following the manufacturer's operating instructions and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Boiler Generator #1 are based on the following:

$PM/PM_{10}/PM_{2.5}$	–	0.12 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
SO_2	–	Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO_x	–	4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
CO	–	0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
VOC	–	0.36 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
Visible Emissions	–	06-096 C.M.R. ch. 101

The BACT emission limits for Boiler Generator #1 are the following:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler Generator #1	0.24	0.24	0.24	-	9.00	1.94	0.73

Visible emissions from Boiler Generator #1 shall not exceed 20% opacity on a six-minute block average basis.

BACT for Boiler Generator #1 includes recordkeeping of all maintenance conducted on the engine.

2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to Boiler Generator #1. It is an emergency generator powered by an engine with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standards Requirements

For Boiler Generator #1, Columbia shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart IIII. [06-096 C.M.R. ch. 169, § 4(B)(1)]

b. Chapter 169 Stack Height Requirements

Chapter 169 identifies stack height requirements for any stack used to exhaust a generator engine or combination of generator engines with a combined rated output equal to or greater than 1,000 brake horsepower (747 kW). Individual generator engines with a maximum power capacity of less than 300 kW are not included in the assessment of the combined generator power capacity exhausted through a common stack. [06-096 C.M.R. ch. 169, § 6]

There are no stack height requirements in Chapter 169 applicable to Boiler Generator #1 because it exhausts through its own stack and its rated output is less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to Boiler Generator #1 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200]

A summary of applicable federal 40 C.F.R. Part 60, Subpart IIII requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart IIII, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (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 40 C.F.R. Part 60, Subpart IIII, resulting in the engine being subject to requirements of this subpart 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;

- 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 ICE 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.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

b. <u>40 C.F.R. Part 60, Subpart IIII Requirements</u>

(1) Manufacturer Certification Requirement
Boiler Generator #1 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement
The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements
The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. Columbia may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

Columbia shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(5) Annual Time Limit for Maintenance and Testing
As an emergency engine, Boiler Generator #1 shall 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). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement
No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping
Columbia shall keep records that include the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time.
[40 C.F.R. § 60.4214(b)]

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

Pursuant to 40 C.F.R. § 63.6590(c), stationary compression ignition engines subject to regulations under 40 C.F.R. Part 60, Subpart IIII must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart IIII. No further requirements apply for Boiler Generator #1 under Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

C. Briquette Machine

In a letter to the Department dated March 31, 2026, Columbia stated they no longer operate or have the briquette machine onsite. As such, they have requested its removal from their license. The Briquette Machine is considered removed from this Air Emission License, and relevant Specific Conditions shall be removed.

D. 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 15,000 ton/yr of biomass (at 50% moisture) in Boilers #1 and #2 (combined);
- Firing 15,000 ton/yr of biomass (at 50% moisture) in Boiler #3;
- Firing 200,000 gal/yr of distillate fuel in Heaters #1, #2, and #3 (combined);
- Operating Boiler Generator #1 for 100 hrs/yr of non-emergency operation;
- A VOC limit from the Veneer Drying Process of 21.5 tpy; and
- A VOC limit from the Splicing Process of 2 tpy.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of Air Emission License A-353-71-K-N/A (issued 4/22/2024) and in the Order section of this amendment to that license.

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

	PM	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_x**	**CO**	**VOC**
Boilers #1 and #2	23.6	22.7	14.0	1.7	14.9	40.5	1.1
Boiler #3	11.5	6.8	6.8	1.7	14.9	40.5	1.1
Boiler Generator #1	-	-	-	-	0.5	0.1	-
Veneer Dryer #1	1.1	1.1	1.1	-	2.0	0.5	-
Veneer Drying Process	-	-	-	-	-	-	21.5
Splicing Process	-	-	-	-	-	-	2.0
Total TPY	**36.2**	**30.6**	**21.9**	**3.4**	**32.3**	**81.6**	**25.7**

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_{10}	25
$PM_{2.5}$	15
SO_2	50
NO_x	50
CO	250

Columbia previously submitted an ambient air quality impact analysis outlined in air emission license A-353-71-H-R (dated June 27, 2006) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this license amendment.

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-353-71-L-A subject to the conditions found in Air Emission License A-353-71-K-N/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 is a new condition:

(30) **Boiler Generator #1**

A. Boiler Generator #1 is licensed to fire distillate fuel. [06-096 C.M.R. ch. 115, BACT]

B. Columbia shall keep records of all maintenance conducted on the engine associated with Boiler Generator #1. [06-096 C.M.R. ch. 115, BACT]

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

Unit	PM (lb/hr)	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler Generator #1	0.24	0.24	0.24	-	9.00	1.94	0.73

D. Visible Emissions

Visible emissions from Boiler Generator #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

E. Boiler Generator #1 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following: [incorporated under 06-096 C.M.R. ch. 115, BACT]

1. Manufacturer Certification
   Boiler Generator #1 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)]

2. Ultra-Low Sulfur Fuel
   The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BPT]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing

   a. As an emergency engine, the unit shall 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 log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115, BPT]

   b. Columbia shall keep records that include the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance
   The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. Columbia may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

   Columbia shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

Condition (23) of Air Emission License A-353-71-K-N/A is deleted.

DONE AND DATED IN AUGUSTA, MAINE THIS 24th DAY OF APRIL, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-353-71-K-N/A (issued 04/22/2024).

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 31, 2026
Date of application acceptance: April 1, 2026

This Order prepared by Zac Hicks, Bureau of Air Quality.