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-K-N/A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **After-the-Fact Renewal and Amendment**

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

The Air Emission License for Columbia Forest Products, Inc. (Columbia) expired on January 14, 2023. A renewal application was received and accepted as complete for processing on April 24, 2023. Columbia has applied to renew their expired license for the operation of emission sources associated with their wood processing facility. Columbia has also requested an amendment to their license in order to increase the process rate of the Veneer Dryers and reduce the distillate fuel limit in Veneer Dryer #1.

The equipment addressed in this license is located at 395 Missile St., Presque Isle, Maine.

B. Emission Equipment

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

Boilers and Other Combustion Units

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1	15.0	1.7 tons/hr	Wood, Specification waste oil	1962	1962	1
Boiler #2	15.0	1.7 tons/hr	Wood, Specification waste oil	1962	1962	2
Boiler #3	24.0	2.7 tons/hr	Wood[1]	2003	2003	B3
Veneer Dryer #1 Heaters (Heaters #1, #2, and #3)	15.0 (5.0 each)	107 gal/hr (combined)	Distillate fuel	1973	1973	V1

[1] Boiler #3 was licensed to fire specification waste oil in a previous license amendment (A-353-71-J-M, issued 2/24/2026). However, in this renewal application, Columbia requested that Boiler #3 be licensed to fire only wood.

Columbia may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.
http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf

Additionally, Columbia may operate portable engines used for maintenance or emergency-only purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
Veneer Dryer #1	175 ft/min	None	V1
Veneer Dryer #3	175 ft/min	None	V3
Veneer Splicers	45,000 lbs resin/yr	None	Fugitive
Wood Dust Handling System	N/A	Cyclones #1, #2, and #3	N/A
Air Handling System	N/A	Baghouse	
Briquette Machine	1 ton/hr	None	Fugitive

Columbia changed the glue type that is used during the Splicing Process in the jointer machine described in Section II.B. Columbia uses less than 20,000 lb/yr of the glue. The glue's total HAP content is less than 2% by weight. With total HAP emissions of 400 lb/year or less, this glue is considered an insignificant activity per *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, Appendix B, Section B.1.

Parts Washers

Emission Unit ID	Capacity (gallons)	Solvent %VOC
Parts Cleaner #1	16	100
Parts Cleaner #2	16	100
Parts Cleaner #3	30	100

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.

Portable or Non-Road 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.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or *Logs* mean either hardcopy or electronic records.

Specification Waste Oil means a petroleum-based oil which, through use or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties, and meets all of the following requirements:

- It has sufficient liquid content to be free flowing;
- It meets all of the constituent and property standards as specified in *Waste Oil Management Rules*, 06-096 C.M.R. ch. 860;
- It does not otherwise exhibit hazardous waste characteristics; and
- It has not been mixed with a hazardous waste.

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 previous air emission license for Columbia expired on January 14, 2023. A complete application was not submitted prior to the expiration date; therefore, Columbia is considered to be an existing source applying for an after-the-fact renewal. Columbia has also applied to modify their license as addressed in Section I(A) above.

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 Emission Levels
PM	50	36.2	-13.8	100
PM_{10}	30.4	30.6	0.2	100
$PM_{2.5}$	--	21.9	21.9[2]	100
SO_2	10.3	3.4	-6.9	100
NO_x	68.7	31.8	-36.9	100
CO	81.6	81.5	-0.1	100
VOC	37.9	25.7	-12.2	100

Therefore, this license is considered to be both an after-the-fact renewal and a minor modification and has been processed through 06-096 Code of Maine Rules C.M.R. ch. 115.

[2] Previous license did not address $PM_{2.5}$ emissions. This license renewal and amendment includes the $PM_{2.5}$ emission limits, which is why the Net Change of $PM_{2.5}$ emissions is greater than 20 tpy.

E. Facility Classification

With the annual fuel limit on the boilers and the production rate limit on the veneer drying process, 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 an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis pursuant to 06-096 C.M.R. ch. 115.

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

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

B. Process Description

Columbia produces hardwood veneer (maple, birch, oak, and basswood) in 8-foot and 10-foot lengths on two separate veneer lines. The wood processing facility includes a log storage area, buildings for the nine steam-heated vats, and three separate buildings. Splicing for the veneer process is conducted in the west building (Building #1). The center building (Building #2) contains two veneer lathes, two veneer dryers, and all cutting equipment associated with the green end of the process. The storage for the finished product is located in the east building (Building #3).

Pre-graded logs are received and sorted by species in the wood yard. The logs are then conditioned in the steam-heated vats for 42 to 66 hours. The vats are similar to wood kilns but without fans. After treatment in the vats, the logs are debarked and cut to length. A laser reads the contour of the log, and a computer calculates how to move the log to obtain the best cutting path.

A thin sheet of wood veneer is sliced off the log with a lathe and wound onto a spool. Veneer rejects are sent by conveyor belt to a hog to be ground up for use as fuel. The remaining tree cores are piled in the back lot for use by employees as firewood.

The veneer is un-spooled into one of the facility's two Veneer Dryers, Veneer Dryers #1 and #3. Veneer Dryer #1 (known as the Proctor Dryer) is a direct-contact dryer with three distillate fuel-fired heaters (Heaters #1, #2, and #3 at 5 MMBtu/hr each) and serves the 10-foot veneer line. Veneer Dryer #3 is an indirect-contact unit which utilizes steam from the facility's boilers and serves the 8-foot veneer line. The veneer passes through the dryer in a looping pattern, while either combustion gases (in Veneer Dryer #1) or high pressure steam (in Veneer Dryer #3) dries the wood. The last section of each dryer is a cooler that uses ambient air to cool down the veneer and halt the drying process.

After the veneer exits the dryer, it passes through a quality assurance section where both human inspection and machine inspection look for defects and cut out imperfect pieces of veneer. A computer calculates the best way to cut the sheets to get the best value from the wood. Defect-free sheets are cut to width, taped for shipping, and graded and sorted for shipment to customers who use veneer to make plywood and for woodworking purposes. Sheets with defects must be cut to smaller sizes.

The Splicing Process uses both a jointer and splicing machine to connect these wood pieces back into whole sheet sizes. The wood pieces pass through a jointer which applies glue to the thin edges and joins both sides of the wood. The splicing machine connects narrow wood components into whole sheet sizes. The Splicing Process may be used to obtain specific grain patterns. The spliced pieces are trimmed to size, taped, graded, sorted, and shipped.

Columbia operates three boilers to provide process steam and facility heat, all of which fire wood byproducts from the veneer manufacturing process. Columbia uses the Crate Making/Core Saw Dust Handling System to handle dust generated from the sawing of veneer cores. Wood byproduct generated by the jointer is fed into a hydraulic briquette machine to create compressed logs.

Columbia routinely records data based on ten operating periods per year. Each period is between five and six weeks in duration. For this reason, Columbia Forest Products will record and report data for compliance purposes based on ten operating periods per year rather than on a monthly basis.

C. Boilers

Columbia operates Boilers #1, #2, and #3 for process steam and facility heating needs. All three boilers fire wood byproducts from the manufacturing process. Boilers #1 and #2 are licensed to fire specification waste oil as well. Boiler #3 was licensed to fire specification waste oil in the previous license amendment (A-353-71-J-M). However, Columbia has requested that Boiler #3 be only licensed to fire wood. Boilers #1 and #2 are each rated at 15.0 MMBtu/hr and are equipped with continuous opacity monitors (COM). Boiler #3 is rated at 24.0 MMBtu/hr. Boilers #1 and #2 were manufactured and installed in 1962. Boiler #3 was manufactured and installed in 2003. Each boiler exhausts through its own stack.

1. BPT Findings

The BPT emission limits for Boilers #1, #2, and #3 were based on the following:

Wood

BPT emissions calculations are based on wood at a nominal 50% moisture with a heat value of 4,500 Btu/lb.

Emission factors for Boilers #1 and #2 while burning wood are the following:

PM	–	0.35 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/2022
PM_{10}	–	0.337 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/2022
$PM_{2.5}$	–	0.207 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/2022
SO_2	–	0.025 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/2022
NO_x	–	0.22 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/2022
CO	–	0.6 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/2022
VOC	–	0.017 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/2022
Visible Emissions	–	06-096 C.M.R. ch. 101

Emission factors for Boiler #3 while burning wood are the following:

PM	–	0.17 lb/MMBtu based on A-353-71-I-R/A (1/14/2013), BPT
PM_{10}	–	0.10 lb/MMBtu based on A-353-71-I-R/A (1/14/2013), BPT
$PM_{2.5}$	–	0.10 lb/MMBtu based on A-353-71-I-R/A (1/14/2013), BPT
SO_2	–	0.025 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/2022
NO_x	–	0.22 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/2022
CO	–	0.6 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/2022
VOC	–	0.017 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/2022
Visible Emissions	–	06-096 C.M.R. ch. 101

Specification Waste Oil

Columbia generates waste oil on-site, primarily from bar and chain oil and hydraulic fluid used in equipment. These waste fluids shall be mixed with the wood fuel fired in Boilers #1 and #2. Fuel analyses were conducted which document that both types of add-in fuel meet the definition of "specification waste oil" as defined in *Waste Oil Management Rules*, 06-096 C.M.R. ch. 860. Columbia shall not add solvents or hazardous materials to the specification waste oil.

The BPT emission limits for Boilers #1, #2, and #3 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #1	PM	0.35
Boiler #2	PM	0.35
Boiler #3	PM	0.17

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 #1	5.25	5.06	3.11	0.38	3.30	9.00	0.26
Boiler #2	5.25	5.06	3.11	0.38	3.30	9.00	0.26
Boiler #3	4.08	2.40	2.40	0.60	5.28	14.4	0.41

Fuel Use Limits

Fuel use in Columbia's boilers shall be limited to the following, all based on a ten-period rolling total:

- firing no more than 15,000 tons of wood at a nominal 50% moisture in Boilers #1 and #2 combined;
- firing no more than 15,000 tons of wood at a nominal 50% moisture in Boiler #3; and
- firing no more than 3,500 gallons of specification waste oil in Boilers #1 and #2 combined.

2. Visible Emissions

Streamlining of Standards

In Air Emission License Amendment, A-353-71-J-M (2/24/2016), Boilers #1, #2, and #3 were subject to visible emissions standards for normal operation and alternate standards for startup and shutdown periods. Visible emissions from these boilers are also subject to applicable requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 (Chapter 101). The Department has determined that the visible emissions standards in the recently updated Chapter 101 applicable to Boilers #1, #2, and #3 are more stringent than previously licensed standards. Therefore, the visible

emission limits for Boilers #1, #2, and #3 have been streamlined to the more stringent limit, and only these more stringent limits shall be included in the Order of this air emission license.

Although Boilers #1 and #2 are equipped with COMS, they are not subject to the standards of *Source Surveillance – Emissions Monitoring*, 06-096 C.M.R. ch. 117, for fuel-burning equipment greater than 100 MMBtu/hr. [06-096 C.M.R. ch. 117 § 1(B)] Therefore, Boilers #1 and #2 are subject to Chapter 101 requirements for wood-fired boilers without COMS.

Visible emissions from Boilers #1, #2, and #3 shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time Columbia shall either meet the normal operating visible emissions standard or the following alternative visible emissions standard.

During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (twenty consecutive six-minute block averages) per event. If this alternative visible emissions standard is utilized, Columbia shall keep records of the date, time, and duration of all startup, shutdown, and malfunction events and provide them to the Department upon request.

3. Periodic Monitoring

Periodic monitoring for Boilers #1, #2, and #3 shall include recordkeeping to document fuel use both on a monthly and ten-period rolling total basis. Documentation shall include the type of fuel used.

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

Boilers #1 and #2

Due to when construction of the boilers commenced, 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 for which construction, modification, or reconstruction has commenced after June 9, 1989. [40 C.F.R. § 60.40c]

Boiler #3

Due to its size and date construction was commenced, Boiler #3 is subject to 40 C.F.R. Part 60, Subpart Dc [40 C.F.R. § 60.40c] Boiler #3 is subject to § 60.48c of Subpart Dc.

Columbia shall comply with the applicable reporting and record keeping requirements, by doing on of the following:

a. Columbia shall record and maintain records of the amount of fuel combusted in Boiler #3 during each operating day; or

b. Columbia shall record and maintain records of the amount of fuel combusted in Boiler #3 during each calendar month; or

c. Columbia shall record and maintain records of the total amount of fuel delivered to the facility to be combusted in all boilers during each calendar month.

[40 C.F.R. § 60.48c(g)]

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

Boilers #1, #2, and #3 are 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 JJJJJJ. These units are considered existing biomass boilers. [40 C.F.R. §§ 63.11193 and 63.11195]

Applicable federal 40 C.F.R. Part 63, Subpart JJJJJJ requirements include the following. 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 was due no later than January 20, 2014. [40 C.F.R. § 63.11225(a)(2)] Columbia submitted their Initial Notification to EPA on July 8, 2011.

(2) Boiler Tune-Up Program

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

(ii) Tune-ups shall be conducted every two years for Boilers #1 and #2, and #3. [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. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

(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)]

(v) 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)] Columbia submitted their Notification of Compliance Status to EPA on March 12, 2012.

(3) Compliance Report

A compliance report shall be prepared by March 1st 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."

(4) Energy Assessment

A one-time energy assessment was required to be performed by a qualified energy assessor on Boilers #1, #2, and #3 no later than March 21, 2014. [40 C.F.R. § 63.11196(a)(3)] Columbia conducted their one-time energy assessment on November 13, 2013, and submitted the Notification of Compliance Status to EPA on February 6, 2014.

b. 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. § 63.11225(c)]:

(i) Copies of notifications and reports with supporting compliance documentation;

(ii) 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;

(iii) Records of the occurrence and duration of each malfunction of each applicable boiler; and

(iv) 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. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJJ shall be streamlined to the more stringent six-year requirement.

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. Veneer Dryer #1 Heaters (Heaters #1, #2, and #3)

Columbia operates a direct-contact veneer dryer designated Veneer Dryer #1, which utilizes exhaust gases from the combustion of distillate fuel to dry veneer. Veneer Dryer #1 was manufactured and installed in 1973 by Proctor Schwartz. Veneer Dryer #1 was modified in 1986 to also burn wood. The wood firing equipment and controls were designated the Energex burner in the Columbia's Air Emission License, A-353-71-H-R (6/27/2006). This wood firing equipment is no longer in place and was removed in Air Emission License, A-353-71-I-R/A (1/14/2013).

Veneer Dryer #1 makes use of three distillate fuel-firing burner units, designated Heaters #1, #2, and #3, to supply combustion gases to the dryer. Heaters #1, #2, and #3 each has a maximum design heat input capacity of 5.0 MMBtu/hr, for a total maximum design heat input capacity of 15.0 MMBtu/hr. Veneer Dryer #1 exhausts through a 28.6-foot-high stack.

Heaters #1, #2, and #3 are licensed to fire distillate fuel. With limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use in Heaters #1, #2, and #3 shall not exceed 0.0015% by weight (15 ppm).

The volatile organic compounds (VOC) lb/hr emission rate in the table below for Heaters #1, #2, and #3 while firing distillate fuel characterize emissions from the combustion process only and do not include VOC emissions from the drying of hardwood veneer. Emissions from the drying of veneer are addressed in Section II.E of the Findings of Fact in this license.

1. BPT Findings

   The BPT emission limits for Veneer Dryer #1 Heaters (Heaters #1, #2, and #3) were based on the following:

   <u>Distillate Fuel</u>

$PM/PM_{10}/PM_{2.5}$	–	0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
SO_2	–	based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
NO_x	–	20 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
CO	–	5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
VOC	–	0.2 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
Visible Emissions	–	06-096 C.M.R. ch. 101

The BPT emission limits for Heaters #1, #2, and #3 are the following:

Unit	Pollutant	lb/MMBtu
Heaters #1, #2, and #3	PM	0.08

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)
Heaters #1, #2, and #3 (combined emissions)	1.20	1.20	1.20	0.02	2.14	0.54	0.02

Columbia has requested to reduce the distillate fuel firing limit in Veneer Dryer #1 Heaters (Heaters #1, #2, and #3) from 250,000 to 200,000 gallons per year. Columbia shall be limited to firing 200,000 gallons of distillate fuel in Veneer Dryer #1 Heaters (combined) on a ten-period rolling total basis.

2. Visible Emissions

   Visible emissions from Heaters #1, #2, and #3 shall not exceed 20% opacity on a six-minute block average basis.

3. Periodic Monitoring

   Periodic monitoring for Heaters #1, #2, and #3 shall include recordkeeping to document fuel use both on a monthly and ten-period 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 date construction was commenced and due to the fact that Heaters #1, #2, and #3 are not steam generating units, Heaters #1, #2, and #3 are not subject to 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr for which construction, modification, or reconstruction has commenced 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 JJJJJJ

   Heaters #1, #2, and #3 are not subject to the 40 C.F.R. Part 63, Subpart JJJJJJ. The units do not meet the definition of boiler as defined in 40 C.F.R. § 63.11237 and are therefore exempt from 40 C.F.R. Subpart JJJJJJ. [40 C.F.R. §§ 63.11193, 63.11195 and 63.11237]

E. Veneer Drying Process VOC Emissions

Along with the Veneer Dryer #1, Columbia also operates an indirect contact veneer drying kiln, designated Veneer Dryer #3. Veneer Dryer #3 was manufactured and installed in 2003 by Babcock. Veneer Dryer #3 utilizes steam heat exchange coils (radiators) to heat the interior of the dryer.

1. Criteria Pollutants

Columbia currently dries wood in five- to six-week drying cycle periods, with ten drying cycles occurring in a 12-month period. Columbia dries maple, birch, oak, and basswood in Veneer Dryers #1 and #3. VOC is the criteria pollutant associated with the drying of wood. Columbia shall be restricted to the following VOC emissions from the drying of wood:

Equipment	VOC Emissions	
	Pounds per hour	Tons per year
Veneer Dryer #1	2.58	11.3
Veneer Dryer #3	2.33	10.2

Due to lack of existing data for emissions from hardwood species, VOC emissions calculations are based on emissions testing performed on Veneer Dryer #1 (and the previously licensed Veneer Dryer #2) at the facility in 1995. On that basis, the VOC emissions factor for the drying of hardwood veneer is 0.0234 pounds of VOC per 1,000 square feet of veneer dried (lb/1,000 ft^2). The pounds per hour and tons per year values are based on a dryer screen or belt speed of 175 ft/min for each veneer dryer. The previously estimated VOC emissions were based on a maximum width of 13.33 feet for both dryers. However, the maximum veneer widths that could be accommodated in Veneer Dryers #1 and #3 are 10.5 feet and 9.5 feet, respectively. These widths have been used to estimate VOC emissions for this license.

In order to demonstrate compliance with the VOC emissions limits, Columbia shall maintain VOC emission records for the facility's veneer drying units. VOC emission calculations shall be based on the emission factor discussed above and the square footage of veneer actually dried. The records shall be maintained on a monthly and ten-period rolling total basis. The records shall be updated on a schedule that coincides with the facility's drying cycle schedule.

2. Hazardous Air Pollutants

Potential emissions of total HAP are estimated to be 2.09 tpy based on averaging the emission factors for white and black spruce contained in the *Handbook of Substance-Specific Information for National Pollutant Release Inventory Reporting,*

also known as the NPRI Handbook published by the National Council for Air and Stream Improvement (NCASI). This total is predominantly comprised of acetaldehyde (0.80 tpy) and methanol (1.19 tpy). When reporting actual HAP emissions pursuant to 06-096 C.M.R. ch. 137, Columbia shall use the following emission factors (or other methods approved by the Department).

Pollutant	**lb/MBF**
Acetaldehyde	8.65×10^{-2}
Acrolein	1.15×10^{-3}
Benzene	1.55×10^{-5}
Formaldehyde	8.00×10^{-3}
Methanol	0.129
Methyl Isobutyl Ketone	2.55×10^{-3}
Toluene	2.50×10^{-4}

3. National Emission Standards for Hazardous Air Pollutants

The facility's veneer dryers are not subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Product*, 40 C.F.R. Part 63, Subpart DDDD. This subpart applies to lumber kilns at plywood and composite wood products (PCWP) manufacturing facilities and any other kind of facility. [40 C.F.R. §§ 63.2231(a) and 63.2232(b)] However, the subpart only applies if the facility is a major source of HAP. [40 C.F.R. § 63.2231(b)] With the maximum belt speed on the veneer dryers described in the previous section, Columbia is licensed as an area source of HAP.

F. Wood Dust Handling System

Columbia utilizes three cyclones in the Wood Dust Handling System to control wood dust. Wood dust-laden air is blown to one of three cyclones to separate wood particles from the carrying air. Cyclones #1, #2, and #3 are located just outside the boiler house, above where dust drops from the pneumatic wood dust delivery piping and then into the conveyor belt that feeds the boiler day hopper.

Columbia shall keep a system of maintenance, inspection, and repair for the Wood Dust Handling System, which includes a monthly inspection. Columbia shall document compliance in a maintenance, inspection, and repair log.

Visible emissions from any cyclone shall not exceed 10% opacity on a six-minute block average basis.

G. Process Building Air Handling System

Columbia recycles air through the process building to minimize the dust load to the ambient air. The air handling system blows clean air in while blowing dust-laden air from inside the building through a cartridge filter bag house. The bag house utilizes 64 filter cartridges to filter the air before releasing it outside. The baghouse utilizes pulse jets to intermittently blow built-up dust from the surface of the cartridge filters; the dust drops down into a hopper and is carted to the fuel area for inclusion into the boilers' fuel stream.

Columbia shall keep a system of maintenance, inspection, and repair for the Process Building Air Handling System, which includes a monthly inspection, in order to maintain compliance with the applicable visible emissions standard. Columbia shall document compliance in a maintenance, inspection, and repair log.

Visible emissions from any baghouse shall not exceed 10% on a six-minute block average basis.

H. Crate Making/Core Saw Dust Handling System

Columbia uses a cyclone and dust collector system to handle dust generated from the sawing of veneer cores, designated the Crate Making/Core Saw Dust Handling System.

Columbia shall keep a system of maintenance, inspection, and repair for the Crate Making/Core Saw Dust Handling System, which includes a monthly inspection, in order to maintain compliance with the applicable visible emissions standard. Columbia shall document compliance in a maintenance, inspection, and repair log.

Visible emissions from any cyclone shall not exceed 10% opacity on a six-minute block average basis.

I. Briquette Machine

Columbia operates a hydraulic briquetting machine, designated as the Briquette Machine, to compress wood byproducts generated by the jointer during the Splicing Process. The Briquette Machine is located next to the specialty cut-to-size building. The wood byproducts from the rotary jointer are taken from the ground and loaded in a hopper by using a wheel loader. Material from the hopper is fed inside the building to the Briquette Machine, which is typically run during the day for 8-10 hours. The maximum capacity output of the Briquette Machine is 1 ton per hour.

The wood briquettes are formed using hydraulic pressure and a mold to form the shape with no binders or additives. The wood briquettes produced measure approximately 6 inches by 4 inches by 2½ inches and have a moisture content of about 10%. Potential

emissions from glue, which is added to the wood when it is processed through the jointer, is considered insignificant, as discussed in Section I.B.

Columbia shall establish a system of maintenance, inspection, and repair for the Briquette Machine, which shall include a monthly inspection. Columbia shall document compliance in a maintenance, inspection, and repair log.

Visible emissions from transporting the wood byproducts to the building where the Briquette Machine is located shall not exceed 10% opacity on a six-minute block average basis.

J. Splicing Process VOC and HAPs

VOC emissions are released from the resin applied during the Splicing Process. The resin also contains formaldehyde, a hazardous air pollutant (HAP). Columbia shall limit VOC emissions from the Splicing Process to no greater than 2.0 tons/year and HAP emissions from the Splicing Process to no greater than 2.0 tons/year.

In order to demonstrate compliance with the VOC and HAP emissions limits, Columbia shall maintain emission records for resins and similar materials used in the facility's Splicing Process. VOC and HAP emission calculations shall be calculated using the Safety Data Sheet's VOC and HAP content information from each resin. The records shall be updated on a schedule that coincides with the facility's drying cycle schedule.

K. Parts Washers

Columbia operates three parts washers, designated Parts Cleaners #1, #2, and #3. Parts Cleaners #1 and #2 each have a design capacity of 16 gallons, and Parts Cleaner #3 has a design capacity of 30 gallons. The parts washers are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130, and records shall be kept documenting compliance.

This equipment is exempt from *Industrial Cleaning Solvents*, 06-096 C.M.R. ch. 166 pursuant to Section (3)(B).

L. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from any baghouse shall not exceed 10% on a six-minute block average basis.

M. Fugitive Emissions

Columbia shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

Columbia shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

N. Emission Statements

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

1. The amount of wood fired (at 50% moisture) in Boilers #1, #2, and #3 on a monthly basis;
2. The amount of specification waste oil fired in Boilers #1 and #2 on a monthly basis;
3. The amount of distillate fuel fired in Veneer Dryer #1 Heaters on a monthly basis;
4. The sulfur content of the distillate fuel fired in Veneer Dryer #1 Heaters;
5. Veneer Drying throughput on a monthly basis;
6. Calculations of the VOC and HAP emissions from the Splicing Process on a calendar year total basis; and
7. Hours each emission unit was active or operating on a monthly basis.

Columbia shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Columbia shall pay the annual air quality surcharge, as 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). Reporting year 2023 is the next HAP emissions reporting year (due by May 15, 2024). [38 M.R.S. § 353-A(1-A)]

O. 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 wood (at 50% moisture) in Boilers #1 and #2 (combined);
- Firing 15,000 ton/yr of wood (at 50% moisture) in Boiler #3;
- Firing 200,000 gal/yr of distillate fuel in Heaters #1, #2, and #3 (combined);
- 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 this 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
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**	**31.8**	**81.5**	**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 (6/27/2006) 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 renewal and 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 Renewal and Amendment A-353-71-K-N/A subject to the following conditions.

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

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).

(2) The licensee shall acquire a new or amended air emission license prior to beginning actual construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 C.M.R. ch. 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
[06-096 C.M.R. ch. 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 115]

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

A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]

(16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Boilers #1, #2, and #3**

A. Fuel

1. Columbia shall be limited to firing no more than 15,000 tons of wood in Boilers #1 and #2 combined; 15,000 tons of wood in Boiler #3; and 3,500 gallons of specification waste oil in Boilers #1 and #2 combined, all based on a ten-period rolling total.

2. Compliance shall be demonstrated by fuel records showing the quantity and type of fuel delivered or fuel used (as applicable). Records of annual fuel use shall be kept on a monthly and ten-period rolling total basis.

3. The specification waste oil shall be mixed with the wood fuel fired in the boilers.

4. Columbia shall not add solvent or hazardous material to the specification waste oil.

[06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.35	06-096 C.M.R. ch. 115, BPT
Boiler #2	PM	0.35	06-096 C.M.R. ch. 115, BPT
Boiler #3	PM	0.17	A-353-71-I-R/A (1/14/2013), BPT

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT; A-353-71-I-R/A (1/14/2013), BPT[3]]:

Emission 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 #1	5.25	5.06	3.11	0.38	3.30	9.00	0.26
Boiler #2	5.25	5.06	3.11	0.38	3.30	9.00	0.26
Boiler #3	4.08	2.40	2.40	0.60	5.28	14.4	0.41

D. Visible Emissions

Visible emissions from Boilers #1, #2, and #3 shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction

[3] For PM, PM_{10}, and $PM_{2.5}$ emissions limits for Boiler #3

during which time Columbia shall either meet the normal operating visible emissions standard or the following alternative visible emissions standard.

During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event. If this alternative visible emissions standard is utilized, Columbia shall keep records of the date, time, and duration of all startup, shutdown, and malfunction events and provide them to the Department upon request.
[06-096 C.M.R. ch. 101, § 4(A)(5)(a)]

Compliance with visible emission standards shall be demonstrated using 40 C.F.R. Part 60, Appendix A, Method 9 upon request of the Department. [06-096 C.M.R. ch. 115, BPT]

E. Columbia shall comply with the applicable reporting and record keeping requirements for Boiler #3 of 40 C.F.R. Part 60, Subpart Dc, which include one of the following reporting and record keeping requirements:

1. Columbia shall record and maintain records of the amount of fuel combusted in Boiler #3 during each operating day; or

2. Columbia shall record and maintain records of the amount of fuel combusted in Boiler #3 during each calendar month; or

3. Columbia shall record and maintain records of the total amount of fuel delivered to the facility to be combusted in all boilers during each calendar month.

[40 C.F.R. § 60.48c(g)]

F. Columbia shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1, #2, and #3 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]

   a. Tune-ups shall be conducted every two years for Boilers #1, #2, and #3. [40 C.F.R. § 63.11223(a) and Table 2]

   b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
      (1) <u>As applicable</u>, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next

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

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]

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

(5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]

(6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.11223(b)(7)]

c. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and 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)]

2. Compliance Report

A compliance report shall be prepared by March 1st 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)]

a. Company name and address;

b. A statement of whether the source has complied with all the relevant requirements of this Subpart;

c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

d. The following certifications, as applicable:
   (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
   (2) "No secondary materials that are solid waste were combusted in any affected unit."
   (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

3. 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. § 63.11225(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.

b. Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for

six years; therefore, the five-year record retention requirement of Subpart JJJJJJ shall be streamlined to the more stringent six-year requirement.

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)]

(18) **Veneer Dryer #1 Heaters (Heaters #1, #2, and #3)**

A. Fuel

1. Total fuel use for Heaters #1, #2, and #3 shall not exceed 200,000 gal/yr of distillate fuel, based on a ten-period rolling total basis. [06-096 C.M.R. ch. 115, BPT]

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, BPT]

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 ten-period rolling total basis**.** Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, a statement from the supplier that the fuel delivered meets Maine's fuel sulfur content standards, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Heaters #1, #2, and #3	PM	0.08	06-096 C.M.R. ch. 115, BPT

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

Emission 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)
Heaters #1, #2, and #3 (combined emissions)	1.20	1.20	1.20	0.02	2.14	0.54	0.02

D. Visible emissions from Veneer Dryer #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(2)]

(19) **Veneer Drying Process VOC Emissions**

A. Columbia shall be restricted to the following VOC emissions from the drying of hardwood veneer in Veneer Dryers #1 and #3:

Equipment	VOC Emissions	
	Pounds per hour	Tons per year
Veneer Dryer #1	2.58	11.3
Veneer Dryer #3	2.33	10.2

[06-096 C.M.R. ch. 115, BPT]

B. Columbia shall maintain VOC emission records for the facility's veneer drying units. VOC emission calculations shall be based on an emission factor of 0.0234 lb VOC per 1,000 ft^2 and the square footage of veneer actually dried. The Department may approve the use of an alternative emission factor if additional testing leads to the generation of a more appropriate emission factor. VOC emission records shall be maintained on a monthly and ten-period rolling total basis. [06-096 C.M.R. ch. 115, BPT]

(20) **Wood Dust Handling System**

A. Wood dust-laden air shall be blown to one of three cyclones to separate wood particles from the carrying air.

B. Columbia shall keep a system of maintenance, inspection, and repair for the Wood Dust Handling Systems, which shall allow for a monthly inspection of each system. Columbia shall document compliance in a maintenance, inspection, and repair log.

C. Visible emissions from any cyclone shall not exceed 10% opacity on a six-minute block average basis.

[06-096 C.M.R. ch. 115, BPT]

(21) **Process Building Air Handling System**

A. Columbia shall utilize the Process Building Air Handling System to remove dust from the air in the building. [06-096 C.M.R. ch. 115, BPT]

B. Columbia shall keep a system of maintenance, inspection, and repair for the Process Building Air Handling System, which shall allow for a monthly inspection. Columbia shall document compliance in a maintenance, inspection, and repair log. [06-096 C.M.R. ch. 115, BPT]

C. Visible emissions from any baghouse shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

(22) **Crate Making/Core Saw Dust Handling System**

A. Columbia shall use the Crate Making/Core Saw Dust Handling System to handle dust generated from the sawing of veneer cores.

B. Columbia shall keep a system of maintenance, inspection, and repair for the Crate Making/Core Saw Dust Handling System, which shall allow for a monthly inspection. Columbia shall document compliance in a maintenance, inspection, and repair log.

C. Visible emissions from any cyclone shall not exceed 10% opacity on a six-minute block average basis.

[06-096 C.M.R. ch. 115, BPT]

(23) **Briquette Machine**

Columbia shall establish a system of maintenance, inspection, and repair for the Briquette Machine, which shall include a monthly inspection. Columbia shall document compliance in a maintenance, inspection, and repair log. [06-096 C.M.R. ch. 115, BPT]

Visible emissions from transporting the wood waste to the building where the Briquette Machine is located shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(24) **Splicing Process VOC and HAPs**

Columbia shall limit VOC emissions from the Splicing Process to no greater than 2.0 tons/year and HAP emissions from the Splicing Process to no greater than 2.0 tons/year.

Columbia shall maintain emission records of material use for the facility's Splicing Process. VOC and HAP emission calculations shall be calculated using the Safety Data Sheet's VOC and HAP content information for the resin and any other materials used in the Splicing Process. The records shall be updated on a schedule that coincides with the facility's drying cycle schedule.

[06-096 C.M.R. ch. 115, BPT]

(25) **Parts Washers (Parts Cleaners #1, #2, and #3)**

Parts Cleaners #1, #2, and #3 at Columbia are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

A. Columbia shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 115, BPT]

B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 130]:
   1. Solvent cleaners using less than two liters (68 oz.) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 C.M.R. ch. 130.

   1. Columbia shall attach a permanent conspicuous label to each unit summarizing the following operational standards:
      a. Waste solvent shall be collected and stored in closed containers.
      b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
      d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
      e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the parts washer.
      f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
      g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
      h. Work area fans shall not blow across the opening of the parts washer unit.
      i. The solvent level shall not exceed the fill line.
   2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.

3. Each parts washer shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent.

[06-096 C.M.R. ch. 130]

(26) **General Process Sources**

A. Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

B. Visible emissions from any baghouse shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

(27) **Fugitive Emissions**

A. Columbia shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

B. Columbia shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(28) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Columbia 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. Columbia shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:

1. The amount of wood fired (at 50% moisture) in Boilers #1, #2, and #3 on a monthly basis;
2. The amount of specification waste oil fired in Boilers #1 and #2 on a monthly basis;
3. The amount of distillate fuel fired in Veneer Dryer #1 Heaters on a monthly basis;
4. The sulfur content of the distillate fuel fired in Veneer Dryer #1 Heaters;
5. Veneer Drying throughput on a monthly basis;

6. Calculations of the VOC and/or HAP emissions from the Splicing Process on a calendar year total basis; and
7. Hours each emission unit was active or operating on a monthly basis.

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

C. Columbia shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Columbia shall pay the annual air quality surcharge, as 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). Reporting year 2023 is the next HAP emissions reporting year (such report due May 15, 2024). [38 M.R.S. § 353-A(1-A)]

(29) If the Department determines that any parameter value pertaining to construction and operation of the 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, Columbia may be required to submit additional information. Upon written request from the Department, Columbia 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 22nd DAY OF APRIL, 2024.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: April 24, 2023
Date of application acceptance: April 24, 2023

Date filed with the Board of Environmental Protection:

This Order prepared by Kendra Nash, Bureau of Air Quality.

FILED

APR 22, 2024

State of Maine
Board of Environmental Protection