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

DEPARTMENT ORDER

Robbins Lumber East Baldwin, LLC **Cumberland County** **East Baldwin, Maine** **A-714-71-J-R/A**	**Departmental** **Findings of Fact and Order** **Air Emission License** **Renewal with Amendment**

FINDINGS OF FACT

After review of the air emission license 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

Robbins Lumber East Baldwin, LLC (Robbins) has applied to renew their Air Emission License for the operation of emission sources associated with their sawmill and planer mill.

The equipment addressed in this license is located at 411 Pequawket Trail, Route 113, East Baldwin, Maine.

Robbins has requested an amendment to their license in order to:

1. Add a 60 kW emergency generator; and
2. Remove Kilns #11 and #12.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1	2.91	0.3 ton/hr[1]	biomass	1981	1981	1
Boiler #2	6.28	44.9 gal/hr	distillate fuel	1983	1995	2
Boiler #3	2.93	20.9 gal/hr	distillate fuel	1983	1995	3
Boiler #4	12.4	1.4 ton/hr[1]	biomass	2005	2006	4

[1] Based on an average moisture content of 50% by weight.

Robbins has installed a 250 hp steam turbine generator to provide power to the facility. The turbine is powered by steam from Boiler #4, but does not affect the boiler's combustion rate or emissions. Therefore, the turbine is considered an insignificant activity and mentioned for completeness purposes only.

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Rated Output Capacity (kW)	Fuel Type	Date of Manuf.	Date of Install.
Generator #1	1.0	11	60	propane	2021	2022

Robbins 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, Robbins 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
Pre-Dryer	4.1 MMBF/yr[2]
Kilns #1 – 10	30 MMBF/yr

[2] MMBF/yr = million board feet per year

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. Robbins 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.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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.

D. Application Classification

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

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

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emission Levels
PM	19.5	20.6	+1.1	100
PM_{10}	19.5	17.8[a]	-1.7	100
$PM_{2.5}$	19.5	12.3[a]	-7.2	100
SO_2	10.5	1.7[b]	-8.8	100
NO_x	17.3	20.6	+3.3	100
CO	40.9	42.0	+1.1	100
VOC	35.1	35.1	0	100

[a] Changes to emissions of PM_{10} and $PM_{2.5}$ are due mainly to recalculation based on more precise emission factors and the inclusion of condensable particulate matter.

[b] The decrease in licensed emissions of SO_2 is due to a decrease in maximum sulfur content for distillate fuel.

This modification is determined to be a minor modification. The license has been processed as a renewal with a minor modification pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

E. Facility Classification

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

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

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

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

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. Boilers #1 and #4

Robbins operates Boilers #1 and #4 for process steam and heat. Both boilers fire a mix of biomass fuels including sawdust, chips, bark, and chipped board ends with an average moisture content of 50% by weight.

Boiler #1 has a maximum heat input of 2.91 MMBtu/hr and is controlled by a Zurn mechanical collector (cyclone). It exhausts through its own dedicated stack (Stack #1) that has a height of 33 feet above ground level.

Boiler #4 is a stoker boiler with a maximum heat input of 12.4 MMBtu/hr. Emissions of particulate matter are controlled by the use of two multiclones in series. Boiler #4 uses staged air combustion to minimize emissions of NO_x. Boiler #4 exhausts through its own dedicated stack (Stack #4) that has a height of 40 feet above ground level.

1. BPT Findings

The BPT emission limits for Boilers #1 and #4 were based on the following:

PM	–	Boiler #1 – 0.3 lb/MMBtu pursuant to 06-096 C.M.R. ch. 103 Boiler #4 – 0.25 lb/MMBtu pursuant to 06-096 C.M.R. ch. 115, BACT (A-714-71-C-A, 3/17/2006)
PM_{10}	–	0.217 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/22
$PM_{2.5}$	–	0.137 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/22
SO_2	–	0.025 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
NO_x	–	0.22 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
CO	–	0.6 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
VOC	–	0.017 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/22
Visible Emissions	–	06-096 C.M.R. ch. 101

The BPT emission limits for Boilers #1 and #4 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #4	PM	0.25

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	0.87	0.63	0.40	0.07	0.64	1.74	0.05
Boiler #4	3.10	2.69	1.70	0.31	2.73	7.44	0.21

2. Visible Emissions

Visible emissions from Boilers #1 and #4 each shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time Robbins may comply with the following work practice standards in lieu of the numerical visible emissions standard.

a. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler.

b. Develop and implement a written startup and shutdown plan for each boiler.

c. Limit the duration of unit startups, shutdowns, or malfunctions to each not exceed one hour per occurrence.

Note: The above statement does not restrict boiler startups, shutdowns, or malfunctions to one hour. It restricts the amount of time the emission unit is exempt from the numerical visible emissions standard. A startup, shutdown, or malfunction may extend beyond one hour in length; however, the emission unit becomes subject to the numerical visible emission standard (30% opacity) one hour after the first six-minute block exceeds 30% opacity.

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

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

Due to its size, Boiler #1 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. Boiler #4 is subject to 40 C.F.R. Part 60, Subpart Dc. [40 C.F.R. § 60.40c]

Robbins shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boiler #4. As a wood-fired boiler with a maximum heat input less than 30 MMBtu/hr, there are no applicable emission standards contained in the regulation. However, Robbins is subject to the following recordkeeping requirement:

Robbins shall maintain records of the amounts of each fuel combusted in Boiler #4 during each calendar month. [40 C.F.R. § 60.48c(g)]

C. Boilers #2 and #3

Robbins operates Boilers #2 and #3 for process steam and heat. The boilers are rated at 6.28 MMBtu/hr and 2.93 MMBtu/hr, respectively, and fire distillate fuel with a maximum sulfur content of 0.0015% by weight. They were both manufactured in 1983 and installed in 1995. Boiler #2 exhausts through Stack #2, and Boiler #3 exhausts through Stack #3, each with a stack height of 32 feet above ground level.

Boilers #2 and #3 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in Boilers #2 and #3 shall not exceed 0.0015% by weight (15 ppm).

Boilers #2 and #3 were previously limited to a combined fuel usage of 250,000 gal/year on a 12-month rolling total basis. This limit is considered obsolete and has been removed.

1. BPT Findings

The BPT emission limits for the boilers were based on the following:

$PM/PM_{10}/PM_{2.5}$	–	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	–	0.34 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 Boilers #2 and #3 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #2	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)
Boiler #2	0.50	0.50	0.50	0.01	0.90	0.22	0.02
Boiler #3	0.23	0.23	0.23	–	0.42	0.10	0.01

2. Visible Emissions

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

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

   Due to their size and date of manufacture, Boilers #2 and #3 are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Boilers #1, #2, #3, and #4 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. Boilers #1 and #4 are considered existing biomass boilers, and Boilers #2 and #3 are considered existing oil boilers. [40 C.F.R. §§ 63.11193 and 63.11195]

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

1. Work Practice Requirements

   a. Boiler Tune-Up Program

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

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

Boiler Category	**Tune-Up Frequency**
Existing Oil or Biomass fired boilers that are not designated as "Boilers with Less Frequent Tune-up Requirements" (Boilers #1, #2, and #4)	Every 2 years
Oil fired boilers with a heat input capacity of ≤ 5MMBtu/hr (Boiler #3)	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

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

(i) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. For Boilers #1, #2, and #4, delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. For Boiler #3, delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]

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

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. For Boilers #1, #2, and #4, delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. For Boiler #3, delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]

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

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

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

(4) 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:

(i) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up; and

(ii) A description of any corrective actions taken as part of the tune-up of the boiler.

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

b. Compliance Report

A compliance report shall be prepared by March 1st biennially for Boilers #1, #2, and #4 which covers the previous two calendar years and every five years for Boiler #3 which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

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

2. Recordkeeping

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)]:

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

Records shall be in a form suitable and readily available for expeditious review.

E. Generator #1

Robbins has installed a new stationary emergency generator (Generator #1). Generator #1 is a Kohler KG60 generator set consisting of an engine and electrical generator. The engine's maximum heat input is calculated to be 1.0 MMBtu/hr firing propane.

1. BACT Findings

Robbins has proposed to burn only propane in Generator #1. Propane is an inherently low-ash and low-sulfur fuel. Pursuant to 40 C.F.R. Part 60, Subpart JJJJ, this unit is certified by the manufacturer to meet EPA's Phase 1 emission standards in 40 C.F.R. Part 1054, Appendix A (formerly Appendix I) applicable to non-handheld class II engines.

BACT for emissions from Generator #1 is the use of an engine compliant with 40 C.F.R. Part 60, Subpart JJJJ and the emission limits in the tables below.

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

PM, PM_{10}, and $PM_{2.5}$	–	0.05 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT
SO_2	–	5.88×10^{-4} lb/MMBtu from AP-42 Table 3.2-3 dated 7/00
NO_x	–	1.14 lb/MMBtu based on manufacturer certification data
CO	–	5.16 lb/MMBtu based on manufacturer certification data
VOC	–	0.27 lb/MMBtu based on manufacturer certification data
Visible Emissions	–	06-096 C.M.R. ch. 115, BACT

The BACT emission limits for 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)
Generator #1	0.05	0.05	0.05	–	1.14	5.16	0.27

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis.

2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to 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 Generator #1, Robbins shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart JJJJ. [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]

These requirements do not apply because Generator #1 has a rated output less than 1,000 brake horsepower and exhausts through its own dedicated stack.

3. New Source Performance Standards

Standards of Performance for Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ is applicable to Generator #1 since the unit was ordered after June 12, 2006, and manufactured after January 1, 2009. [40 C.F.R. § 60.4230] By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ, the unit also meets the requirements found in the *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

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

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart JJJJ, 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 JJJJ, resulting in the engine being subject to requirements applicable to non-emergency engines.

(1) Emergency Situation Operation (On-Site)

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

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- 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. §§ 60.4243(d) and 60.4248]

b. 40 C.F.R. Part 60, Subpart JJJJ Requirements

(1) Manufacturer Certification Requirement
The engine shall be certified by the manufacturer as meeting the emission standards for emergency engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233]

(2) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4237]

(3) Operation and Maintenance Requirement
The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Robbins that are approved by the engine manufacturer. Robbins may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

(4) Annual Time Limit for Maintenance and Testing
As an emergency engine, the unit shall be limited to 100 hours/year for maintenance and testing. The emergency engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours total allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 C.F.R. § 60.4243(d)]

(5) Recordkeeping
Robbins shall keep records that include maintenance conducted on the engine and 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. § 60.4245(b)]

F. Kilns

Robbins operates a pre-dryer and ten kilns for drying lumber.

1. Criteria Pollutants

The drying kilns are limited to an annual throughput limit of 30.0 MMBF/year on a 12-month rolling total basis. Although Robbins dries both pine and non-pine species, licensed annual emissions of VOC have been conservatively based on pine only. Compliance with this limit shall be based on recordkeeping of the amount (board feet) of lumber dried on a monthly and 12-month rolling total basis.

Robbins shall keep monthly records of kiln loadings including the amount of pine and non-pine wood dried. For emissions inventory purposes, the following equations shall be used to calculate actual monthly and annual VOC emissions from the wood drying equipment.

$$Monthly\ VOC\ from\ pine\ (lb/month) = \left(\frac{2.26\ lb\ VOC}{MBF}\right)\left(\frac{MBF\ of\ pine}{month}\right)$$

$$Monthly\ VOC\ from\ non\text{-}pine\ (lb/month) = \left(\frac{1.283\ lb\ VOC}{MBF}\right)\left(\frac{MBF\ of\ non\text{-}pine}{month}\right)$$

$$Total\ Monthly\ VOC\ (tons) = [VOC\ (pine) + VOC\ (non\text{-}pine)] \div 2{,}000$$

$$Annual\ VOC\ (tpy) = sum\ of\ monthly\ VOC\ emissions\ (tons)$$

The emission factor of 2.26 lb/MBF for pine is based on National Council for Air and Stream Improvement (NCASI) Technical Bulletin 718, *A Small-Scale Kiln Study on Method 25A Measurements of Volatile Organic Compound Emissions from Lumber Drying*, dated July 1996.

The emission factor of 1.283 lb/MBF for non-pine species is based on a Forest Products Journal article *Estimated VOC Losses during the Drying of Five Northeastern Species* dated 1999.

2. Hazardous Air Pollutants

Potential emissions of total HAP are estimated to be 3.4 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 NCASI. This total is predominantly comprised of acetaldehyde (1.3 tpy) and methanol (1.9 tpy). Although Robbins also dries pine lumber in their kilns, these are the only emission factors available for species native to the Northeast. When reporting actual HAP emissions pursuant to 06-096 C.M.R. ch. 137, Robbins 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 kilns 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 annual throughput limit on the kilns, Robbins is licensed as an area source of HAP.

G. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

H. General Process Emissions

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

I. Emission Statements

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

1. The amount of boimass fired (at 50% moisture) in Boilers #1 and #4 on a monthly basis;
2. The amount of distillate fuel fired in Boilers #2 and #3 (each) on a monthly basis;
3. The sulfur content of the distillate fuel fired in Boilers #2 and #3;
4. The amount of propane fired in Generator #1;
5. Kiln throughput on a monthly basis and calculations of annual VOC and HAP from the kilns;
6. Hours each emission unit was active or operating on a monthly basis.

In reporting year 2023 and every third year thereafter, Robbins shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. Robbins shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

J. 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:

- The biomass fired in Boilers #1 and #4 has an average moisture content of 50% by weight;
- Firing Boilers #1 - #4 for 8,760 hours per year each at maximum load;
- Operating Generator #1 for 100 hrs/yr; and
- Drying 30.0 MMBF/yr of pine in the kilns.

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

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

	PM	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC
Boiler #1	3.8	2.8	1.7	0.3	2.8	7.6	0.2
Boiler #2	2.2	2.2	2.2	–	3.9	1.0	0.1
Boiler #3	1.0	1.0	1.0	–	1.8	0.5	–
Boiler #4	13.6	11.8	7.4	1.4	12.0	32.6	0.9
Generator #1	–	–	–	–	0.1	0.3	–
Kilns	–	–	–	–	–	–	33.9
Total TPY	**20.6**	**17.8**	**12.3**	**1.7**	**20.6**	**42.0**	**35.1**

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

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

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

ORDER

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

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

The Department hereby grants Air Emission License A-714-71-J-R/A subject to the following conditions.

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

STANDARD 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 commencing 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 and #4**

A. Boilers #1 and #4 shall fire only biomass fuels as described by this license. [06-096 C.M.R. ch. 115, BPT]

B. Robbins shall operate and maintain the cyclone on Boiler #1 and the multiclones on Boiler #4. [06-096 C.M.R. ch. 115, BPT]

C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #4	PM	0.25	06-096 C.M.R. ch. 115, BPT

D. 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)
Boiler #1	0.87	0.63	0.40	0.07	0.64	1.74	0.05
Boiler #4	3.10	2.69	1.70	0.31	2.73	7.44	0.21

E. Visible emissions from Boilers #1 and #4 each shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time Robbins may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(5)(a)]

1. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler.

2. Develop and implement a written startup and shutdown plan for each boiler.

3. Limit the duration of unit startups, shutdowns, or malfunctions to each not exceed one hour per occurrence (10 consecutive six-minute blocks).

   Note: The above statement does not restrict boiler startups, shutdowns, or malfunctions to one hour. It restricts the amount of time the emission unit is exempt from the numerical visible emissions standard. A startup, shutdown, or malfunction may extend beyond one hour in length; however, the emission unit becomes subject to the numerical visible emission standard (30% opacity) one hour after the first six-minute block exceeds 30% opacity.

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

F. Robbins shall maintain records of the amounts of each fuel combusted in Boiler #4 during each calendar month. [40 C.F.R. § 60.48c(g)]

(18) **Boilers #2 and #3**

A. Fuel

1. 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]

2. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year basis. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	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/BACT]:

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 #2	0.50	0.50	0.50	0.01	0.90	0.22	0.02
Boiler #3	0.23	0.23	0.23	–	0.42	0.10	0.01

D. Visible emissions from Boilers #2 and #3 each shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(2)]

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

Robbins shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1, #2, #3, and #4 including, but not limited to, the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]

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

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

Boiler Category	**Tune-Up Frequency**
Existing Oil or Biomass fired boilers that are not designated as "Boilers with Less Frequent Tune-up Requirements" (Boilers #1, #2, and #4)	Every 2 years
Oil fired boilers with a heat input capacity of ≤ 5MMBtu/hr (Boiler #3)	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

2. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
   a. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. For Boilers #1, #2, and #4, delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. For Boiler #3, delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F..R § 63.11223(b)(2)]
   c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. For Boilers #1, #2, and #4, delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. For Boiler #3, delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
   d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
   e. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]

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

3. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. The report shall contain the following information:
   a. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
   b. A description of any corrective actions taken as part of the tune-up of the boiler; and
   c. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

B. Compliance Report

A compliance report shall be prepared by March 1st biennially for Boilers #1, #2, and #4 which covers the previous two calendar years and every five years for Boiler #3 which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

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

C. 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.

Records shall be in a form suitable and readily available for expeditious review.

(20) **Generator #1**

A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]

B. 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)
Generator #1	0.05	0.05	0.05	–	1.14	5.16	0.27

C. Visible Emissions

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

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

1. Manufacturer Certification
The engine shall be certified by the manufacturer as meeting the emission standards for emergency engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1.

2. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BACT]

3. 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). The 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. § 60.4243(d) and 06-096 C.M.R. ch. 115, BACT]

b. Robbins shall keep records that include maintenance conducted on the engine and 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. § 60.4245(b)]

4. Operation and Maintenance
The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by Robbins that are approved by the engine manufacturer. Robbins may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

(21) **Kilns**

A. Robbins is licensed to operate a pre-dryer and a total of 10 wood drying kilns, eight of which are single kilns and two double kilns. [06-096 C.M.R. ch. 115, BPT]

B. Yearly throughput is limited to 30.0 million board feet per year based on a 12-month rolling total. Compliance shall be demonstrated by monthly kiln loading records showing the amount of pine and non-pine dried (MMBF each).
[06-096 C.M.R. ch. 115, BPT]

C. Robbins shall use the following equations to calculate actual monthly and annual (12 month rolling total) VOC emissions from the wood drying equipment.
[06-096 C.M.R. ch. 115, BACT]

$$Monthly\ VOC\ from\ pine\ (lb/month) = \left(\frac{2.26\ lb\ VOC}{MBF}\right)\left(\frac{MBF\ of\ pine}{month}\right)$$

$$Monthly\ VOC\ from\ non\text{-}pine\ (lb/month) = \left(\frac{1.283\ lb\ VOC}{MBF}\right)\left(\frac{MBF\ of\ non\text{-}pine}{month}\right)$$

$$Total\ Monthly\ VOC\ (tons) = [VOC\ (pine) + VOC\ (non\text{-}pine)] \div 2{,}000$$

$$Annual\ VOC\ (tpy) = sum\ of\ the\ last\ 12\ months\ of\ VOC\ emissions\ (tons)$$

(22) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

(23) **General Process Sources**

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, § 3(B)(4)]

(24) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Robbins 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. Robbins 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 and #4 on a monthly basis;
2. The amount of distillate fuel fired in Boilers #2 and #3 (each) on a monthly basis;
3. The sulfur content of the distillate fuel fired in Boilers #2 and #3;
4. The amount of propane fired in Generator #1;
5. Kiln throughput on a monthly basis and calculations of annual VOC and HAP from the kilns;
6. Hours each emission unit was active or operating on a monthly basis.

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

C. In reporting year 2023 and every third year thereafter, Robbins shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Robbins shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

(25) If the Department determines that any parameter value pertaining to construction and operation of the proposed emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, Robbins may be required to submit additional information. Upon written request

from the Department, Robbins 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 21st DAY OF JUNE, 2023.

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: 12/19/2022
Date of application acceptance: 12/22/2022

Date filed with the Board of Environmental Protection:

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

FILED

JUN 21, 2023

State of Maine
Board of Environmental Protection