



DEPARTMENT ORDER

**Louisiana-Pacific Corporation
Aroostook County
New Limerick, Maine
A-327-70-O-R**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal**

FINDINGS OF FACT

After review of the Part 70 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

FACILITY	Louisiana-Pacific Corporation
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	321219
NATURE OF BUSINESS	Reconstituted Wood Product Manufacturing
FACILITY LOCATION	240 Station Road, New Limerick, Maine

Louisiana-Pacific Corporation (LP) owns and operates an Oriented Strand Board (OSB) and Laminated Strand Lumber (LSL) production facility located in New Limerick, Maine.

LP has the potential to emit more than 100 tons per year (tpy) of particulate matter (PM), particulate matter under 10 micrometers (PM₁₀), particulate matter under 2.5 micrometers (PM_{2.5}), nitrogen oxides (NO_x), and carbon monoxide (CO), and 50 tpy of volatile organic compounds (VOC). Therefore, the source is classified as a major source for criteria pollutants.

LP also has the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) and 25 tpy or more of combined HAP. Therefore, the source is classified as a major source for HAP.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Fuel Burning Equipment

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Fuel Type	Manuf. Date	Install. Date
Central Heating Unit (CHU)	278	Bark, wood, mill trimmings	2007	2008
Dryer RTO	13.5	Propane/Natural Gas	2007	2007
Press RCO/RTO	11.2	Propane/Natural Gas	1999	1999
Fire Pump	1.2	Distillate fuel	1981	1982
TOS Backup Pump	0.3	Distillate fuel	2007	2007
Emergency Dryer Drum Engine #1	0.04	Propane	2004	2004
Emergency Dryer Drum Engine #2	0.04	Propane	2004	2004

Process Equipment

Equipment	Description	Pollution Control Equipment
Dryers (2)	Uses exhaust gases from CHU to dry strands/wafers at a max rate of 15.25 Oven Dried Ton (ODT)/hr	Wet ESP & RTO
Dry Wafer Storage Bins (2)	Dry strand/wafer storage	Baghouse
OSB/LSL Flying Cutoff Saws	Cut the mats to length before they enter the presses	Baghouse
Thermal Oil System	Provides heat for the OSB Press, LSL Press steam generator, buildings, and log ponds	Multiclone & Dry ESP
OSB Press	Uses heat from thermal oil and pressure to bind wafers together	RCO/RTO
LSL Press	Uses steam and pressure to bind strands together	N/A
Pneumatic Systems	Transfers material around the facility	Baghouses
LSL Edge Seal & OSB Spray Booths	Surface treatments for finished product	N/A

LP operates aqueous-based parts washers. Since, the cleaning solution contains less than 5% VOC, they do not meet the definition of a solvent cleaning machine, and there are no applicable requirements in *Solvent Cleaners*, 06-096 C.M.R. ch. 130. Therefore, these parts washers are considered insignificant activities and mentioned for completeness purposes only.

LP has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

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D. Acronyms and Units of Measure

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CHU	Central Heating Unit
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
EPA or US EPA	United States Environmental Protection Agency
ESP	Electrostatic Precipitator
gal/hr	gallon per hour
GHG	Greenhouse Gases
gr/dscf	grains per dry standard cubic feet
HAP	Hazardous Air Pollutants
HCl	Hydrogen Chloride or Hydrochloric Acid
Hg	Mercury
lb	pound
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units

lb/ton	pounds per ton
LSL	Laminated Strand Lumber
M.R.S.	Maine Revised Statutes
MDI	methylene-diisocyanate
MMBtu	Million British Thermal Units
MMBtu/hr	million British Thermal Units per hour
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O ₂	Oxygen
OSB	Oriented Strand Board
PM	Particulate Matter less than 100 microns in diameter
PM ₁₀	Particulate Matter less than 10 microns in diameter
PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
ppmdv	parts per million on a dry volume basis
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCO	Regenerative Catalytic Oxidizer
RICE	Reciprocating Internal Combustion Engine
RTO	Regenerative Thermal Oxidizer
SO ₂	Sulfur Dioxide
SSMP	Startup, Shutdown, and Malfunction Plan
THC	Total Hydrocarbon
ton/hr	ton per hour
TOS	Thermal Oil System
tpy	ton per year
VOC	Volatile Organic Compounds
WESP	Wet Electrostatic Precipitator

E. 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); and vegetative agricultural and sylvicultural materials, such as logging residues (slash). This definition also includes wood as defined in 40 C.F.R. Part 60, Subpart Db.

Clean Dry Biomass means any biomass-based solid fuel that has not been painted, pigment-stained, or pressure treated, does not contain contaminants at concentrations not normally associated with virgin biomass materials, has a moisture content of less than 20%, and is not a solid waste.

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 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.

F. Application Classification

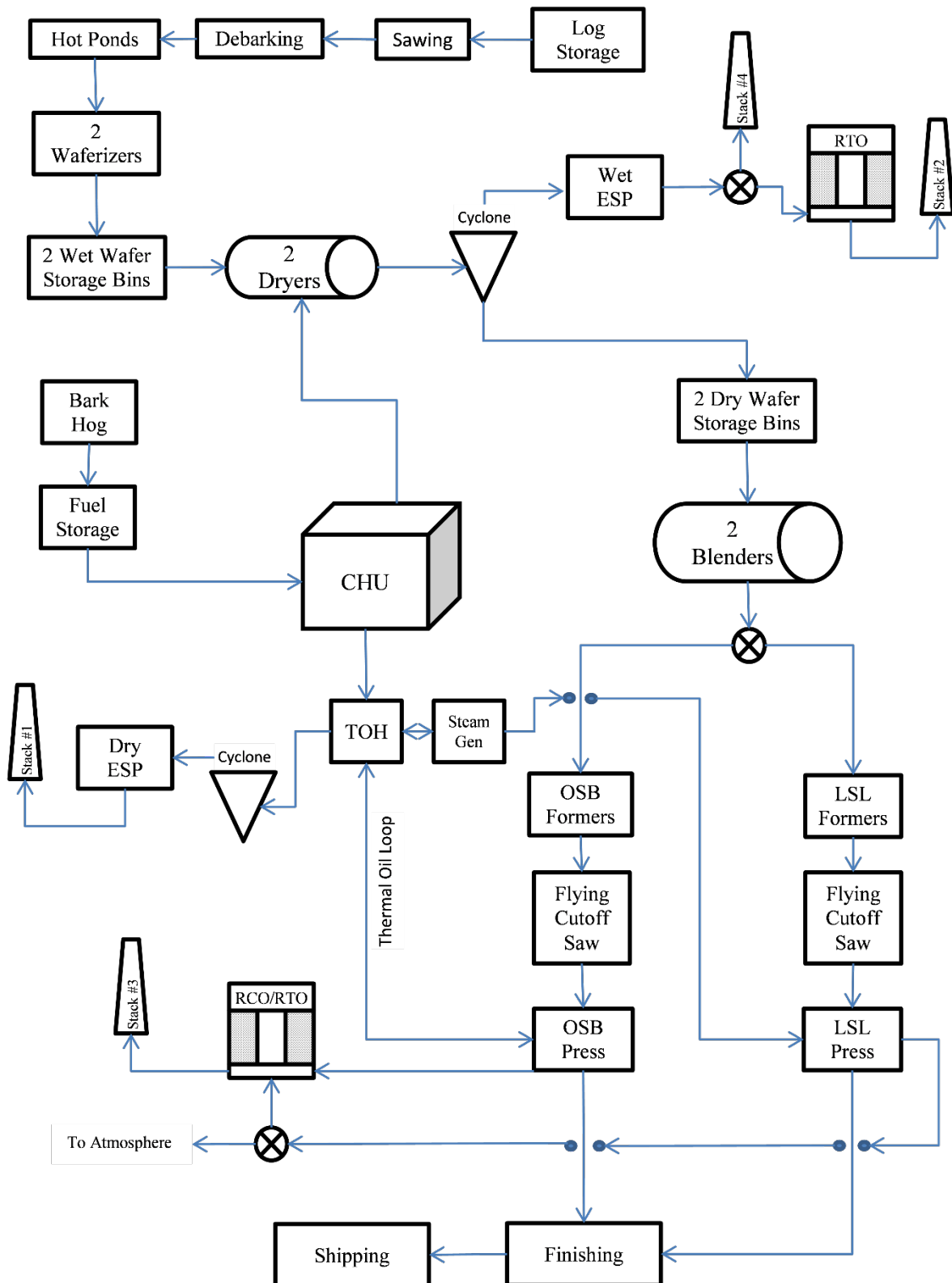
All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for LP does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be a Part 70 License renewal issued under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

G. Facility Description

LP owns and operates an Oriented Strand Board (OSB) and Laminated Strand Lumber (LSL) manufacturing facility. Former terminology used to describe the same process in previous applications and air emission licenses include Oriented Strand Lumber (OSL) and Solid Start Strand Lumber (SSSL).

Following is an overview of the facility's major areas, processes, and systems.



1. Green End Area

The Green End Area is the first stage in the production process and is common to both the OSB and LSL production processes. The processes associated with this area include the storage of raw materials (logs), slashing, debarking, and waferizing.

Harvested logs, primarily aspen and maple, are delivered to the mill via truck where they are stored in the log storage area. From the log storage area, logs are sent to the log deck and then onto the slasher where, if necessary, they are sawed to length. The sawed logs are then routed to the debarker. Once debarked, the logs are conveyed through hot log conditioning ponds and then sent to one of two waferizers.

The waferizers produce strands (wafers) of wood that, depending on their length, are used in either the LSL or OSB production processes. Wet strands from the waferizers are conveyed to the two wet wafer storage bins prior to being dried in either one of the two single-pass Rotary Dryers.

The bark removed from the logs during the debarking process, along with broken ends, small ends, and wood waste generated in the Green End Area are collected and sent to the bark hog before being used as fuel in the mill's Central Heating Unit.

The various processes associated with the Green End Area are considered insignificant activities per 06-096 C.M.R. ch. 140, Appendix B, §§ A.107, 110, 112, and 113.

2. Central Heating Unit (CHU) and Thermal Oil System (TOS)

The Central Heating Unit (CHU) is a biomass-fired unit with a design heat input capacity of 278 MMBtu/hr. The fuel source for the CHU is biomass, mostly wood waste generated during the log debarking process.

The exhaust from the CHU is split into two distinct streams. One stream (CHU-Dryers) provides direct contact heating for the two Rotary Dryers, and the other stream (CHU-TOS) passes through a heat exchanger to heat oil for the thermal oil system. The hot oil is used to heat the OSB Press as well as generate steam used to heat the LSL Press.

The CHU – Dryers exhaust stream provides direct-contact heat to the Rotary Dryers (typically representing between 30% and 40% of the heat generated by the CHU). The CHU – Dryers exhaust stream passes through the Rotary Dryers and is sent through each dryer's centrifugal cyclone and a WESP for control of PM emissions before being routed through a regenerative thermal oxidizer, referred to as the Dryer RTO, for control of CO, VOC, and HAP emissions. Emissions exhaust through Stack #2.

The CHU-TOS exhaust stream provides indirect-contact heat to the thermal oil system (TOS). This stream makes up approximately 60-70% of the heat generated by the CHU. The TOS provides heat for the OSB Press, buildings, log ponds, and a steam generator. The steam generator then supplies heat to the LSL Press.

The CHU-TOS exhaust stream is sent to a multiclone followed by a dry electrostatic precipitator (ESP) for control of particulate matter emissions. Emissions then exhaust through Stack #1.

3. Rotary Dryers

Wet strands from the wet wafer storage bins are transferred to one of two Rotary Dryers. The dryers are used for both OSB and LSL production. When used for OSB production, one dryer is referred to as the Surface Line Dryer and the other dryer is the Core Line Dryer. The Surface Line Dryer dries the wafers used as the top and bottom surface of the OSB. The surface wafers are dried to a moisture content of 2% or less by weight. The Core Line Dryer dries the wafers used in the core of the OSB. These wafers are dried to a moisture content of 3% or less by weight. When used for LSL production, the dryers can be used interchangeably with each dryer producing the same level of drying.

The Rotary Dryers are each heated by direct contact with exhaust gases from the CHU. The combined dried wafers and exhaust gas stream from each dryer is routed through a centrifugal cyclone where the wafer strands and fines are separated from the exhaust gases. A portion of the exhaust gases from each cyclone is recirculated back either to the dryer's inlet or into the CHU.

After the cyclones, the exhaust gas that is not recirculated is routed through the WESP for control of particulate matter followed by the Dryer RTO for control of CO, VOC, and HAP.

During operation of the Dryer RTO, condensed material accumulates on the ceramic saddles causing the pressure drop across the control device to increase. As a result, occasionally the Dryer RTO must undergo a bake-out process to clean the ceramic saddles and decrease the pressure drop across the unit. During the bake-out process, the Dryer RTO is taken off line and the temperature of the ceramic saddles is increased until excess material coating the ceramic is burned off.

LP has a bypass system for the Dryer RTO that is used in emergency situations only. In such an event, exhaust gases from the WESP bypass the Dryer RTO and are vented directly to atmosphere through Stack #4.

4. Screening/Blending

From the Rotary Dryers, wafers are routed through the centrifugal cyclones to separate the exhaust from the wafers. The dried wafers are conveyed into two dry wafer storage screens. The screens remove fines, which are conveyed to various baghouses where they are collected to be used as fuel in the CHU.

The screened, dried wafers are conveyed to one of two dry wafer storage bins and then sent to either one of the two blenders. Dust generated from the screening process and operation of the dry wafer storage bins is collected and conveyed to various baghouses as described in the Pneumatic Systems section.

In the blenders, resin and wax are mixed with the strands of dried wood. The quantities of resin and wax added to the blenders is dependent on the desired final product characteristics.

The resin used is primarily methylene-diisocyanate (MDI). LP operates four MDI storage tanks, each with a capacity of 19,000 gallons. The MDI storage tanks are considered insignificant activities per 06-096 C.M.R. ch. 140, Appendix B, Section B(1).

5. Forming Lines

Following the blenders, the wafer/resin/wax mix is sent through diverter gates which direct the strands to either the LSL forming line or the OSB forming line. Only one production line (LSL or OSB) can be operated at a time.

In the LSL forming line, strands are oriented and formed into mats. A flying cutoff saw is used to cut the mats to size. The sized mats are then conveyed to the LSL Press.

The OSB forming line operates similarly to the LSL line. Wafers are metered from the formers onto a continuous moving screen line system which is a nominal eight feet wide. The formed wafer mats are separated into nominal 16 feet lengths and then deposited into the OSB Press by the press loader, which accumulates 12 mats prior to loading the press.

Rejected material from the LSL and OSB forming processes is recycled back into the process. Material that meets quality standards is sent on to the LSL or OSB press. Dust from the LSL and OSB forming lines is collected via pick-up points along the process lines and pneumatically conveyed to various baghouses.

6. LSL Press

Mats from the LSL forming line are sent to the LSL Press. The LSL Press is a steam injection, single-opening type press which makes LSL products with a nominal design thickness of up to 3.5 inches. The mats are transferred to press platens and taken into the press where steam is injected into the furnish. A release agent is sprayed on the bottom face conveying surface of the press screen and the top face surface of the mat furnish to prevent material from sticking to the press surfaces.

The steam utilized by the LSL Press is supplied by a steam generator heated by the TOS. The platens on the press are heated indirectly by the TOS as well. The press activates the resins and bonds the product into a single solid entity through heat and pressure. After the pressing cycle is complete, the pressed board, now referred to as billets, are sent to the finishing area.

LP has the physical capability to treat the exhaust from the LSL Press in an existing regenerative catalytic oxidizer/regenerative thermal oxidizer (RCO/RTO), referred to as the Press RCO/RTO, this is the same control device used to treat the exhaust from the OSB Press when it is being operated. However, LP has demonstrated, to the Department's satisfaction, that the emissions are low enough that the RCO/RTO is not a cost-effective treatment option. Therefore, LP is not required to operate the RCO/RTO for control of emissions from the LSL Press.

7. OSB Press

The OSB Press operates in much the same way as the LSL Press. Formed mats are loaded into the multi-opening press. The OSB Press activates the resin and bonds the product into 12 mats. The OSB Press utilizes heated oil to heat and cure the board. The heated oil is supplied by the TOS.

After the pressing cycle is complete, the pressed boards, referred to as mats, are sent to the finishing area. Emissions from the OSB Press are controlled by the Press RCO/RTO for control of VOC and HAP before being exhausted through Stack #3.

8. Cooling and Finishing Areas

The cooling and finishing areas after the presses are operated as two distinct lines, one for LSL and one for OSB.

After exiting the LSL Press, trim saws are used to remove excess edges and ends from billets. After cooling, the billets are stacked and sent to finishing. Reject billets are either sold as off-spec material or hogged for use as fuel in the CHU.

In the LSL Finishing Area, a series of conveyors and saws are used to cut the LSL billets to various widths depending on the order. The LSL products are then stacked, marked, and strapped together for shipment. The edges of the billets may be sealed by the LSL Edge Seal process described below. Dust produced during the finishing process is collected via pick-up points and pneumatically conveyed to the Finishing Area Baghouse.

The OSB Cooling and Finishing areas operate similarly to the LSL operations. The unfinished rough boards are ejected from the OSB Press unloader and sent through a trim saw where they are cut into two (2) 4 x 16-foot panels. The panels are sent to a transfer saw where they are further reduced to 4 x 8-foot panels. The trimmed boards are conveyed to the grade line where they are edge sealed, banded, and placed in a warehouse for shipment. All dry trim material and sawdust are reclaimed by the Pneumatic Systems as with the LSL Finishing Area.

9. Edge Seal Process

The LSL Edge Seal Process is where a coating is applied to the cut edges of the LSL products to minimize the amount of moisture entering through the edges of the product. There are two spray booths associated with the LSL Edge Seal Process. Both spray booths are enclosed and operate automatically and under negative pressure.

The OSB Edge Seal Process also has spray booths which apply an edge seal to the cut side of OSB products to minimize the amount of moisture entering the product. There are three spray booths in the OSB process. One spray booth applies edge seal materials to OSB to be sold as wall board. This spray booth is located after the saws on the main forming line. The second spray booth is used to apply edge seal materials to OSB to be sold for flooring. This spray booth is located after the sander on the finishing line. The third spray booth paints the edges of the OSB board after the 4 x 16-foot sheets are ripped as specified by the customer. This line is beside the OSB finishing line. All three OSB spray booths are enclosed and operate automatically under negative pressure.

All spray booths associated with both the LSL and OSB lines use filters on the air outlet to trap particulate matter prior to venting inside the building. LP minimizes emissions of VOC by using edge seal materials with low VOC content.

10. Pneumatic Systems

Materials (including fines, sawdust, and dust generated by various processes, storage bins, and conveying systems located at the facility) are collected by several pneumatic systems made up of enclosures, ductwork, fans, and baghouses for reuse in the process or as fuel for the CHU.

11. Emergency Engines

LP operates several emergency and back-up engines including the Fire Pump, TOS Backup Pump, and Emergency Dryer Drum Engines #1 and #2.

H. General Facility Requirements

LP is subject to the following state and federal regulations listed below in addition to the regulations listed for specific units as described further in this license.

CITATION	REQUIREMENT TITLE
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 60, Subpart III	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63, Subpart DDDD	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products
40 C.F.R. Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 C.F.R. Part 64	Compliance Assurance Monitoring
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 75	Continuous Emissions Monitoring

Note: C.M.R. = Code of Maine Regulations
C.F.R. = Code of Federal Regulations

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

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

BPT for 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 emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. The CHU meets the NO_x RACT limit of 0.30 lb/MMBtu. LP operates a Continuous Emissions Monitoring System (CEMS) on the CHU in accordance with 06-096 C.M.R. ch. 138. The NO_x RACT requirements are incorporated in this renewal.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt equipment.

The Rotary Dryers are exempt from VOC RACT because they were subject to a Best Available Control Equipment (BACT) analysis in Air Emission License A-327-77-3-A.

The LSL Press is exempt from VOC RACT because it was subject to a BACT analysis in Air Emission License A-327-77-3-A.

The OSB Press and associated RCO/RTO are exempt from VOC RACT because they were subject to a BACT analysis in Air Emission License A-327-72-E-M.

The LSL and OSB Edge Seal Processes are exempt from VOC RACT because they were subject to a BACT analysis in Air Emission License A-327-77-2-A.

The CHU, Diesel Fire Pump, TOS Backup Pump, and Emergency Drum Dryer Engines #1 and #2 are exempt from VOC RACT because their VOC emissions are due to incomplete combustion.

The remaining VOC emitting equipment have combined potential emissions less than 40 tpy. Therefore, LP is not subject to VOC RACT.

D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of the following three categories, per *General Provisions, Who must report?*, 40 C.F.R. § 98.2.

- (a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.
- (a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO₂e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart.
- (a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.
 - (i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.
 - (ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.
 - (iii) The facility emits 25,000 metric tons CO₂e or more per year in combined emissions from all stationary fuel combustion sources.

Emissions of CO₂ from the combustion of biomass are excluded from paragraph (a)(3)(iii) above. Therefore, LP does not meet all three conditions listed in paragraph (a)(3) above. Therefore, LP is not required to fulfill the recordkeeping and reporting requirements of 40 C.F.R. Part 98.

E. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100% of the major source threshold (50 tons/year for VOC and 100 tpy for any other pollutant).

This regulation's 40 C.F.R. § 64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. Furthermore, 40 C.F.R. § 64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 C.F.R. Part 64 § 64.2(b)]

The following table lists all the specific pollutants for each unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

40 C.F.R. Part 64 Applicability Table

Unit	Pollutant	CAM Required	Reason	Regulatory Authority
CHU-TOS	PM/PM ₁₀ (lb/MMBtu)	No	Subject to standards in NSPS 40 C.F.R. Part 60, Subpart Db and NESHAP 40 C.F.R. Part 63, Subpart DDDDD, both proposed after Nov. 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
	PM/PM ₁₀ (lb/hr)	Yes	Dry ESP is used to meet an emission limit of 4.6 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
Rotary Dryers	PM/PM ₁₀	Yes	WESP is used to meet an emission limit of 0.015 gr/dscf and 15.6 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
	THC	No	Subject to standard in NESHAP 40 C.F.R. Part 63, Subpart DDDD	40 C.F.R. § 64.2(b)(1)(i)
	VOC	Yes	RTO/RCO is used to meet a limit of 2.25 lb/hr (as carbon). Pre-control emissions exceed 50 tpy.	40 C.F.R. § 64.2(a)
OSB Press	THC	No	Subject to standard in NESHAP 40 C.F.R. Part 63, Subpart DDDD	40 C.F.R. § 64.2(b)(1)(i)
	VOC	Yes	RTO/RCO is used to meet a limit of 1.75 lb/hr (as carbon). Pre-control emissions exceed 50 tpy.	40 C.F.R. § 64.2(a)
Dry Wafer Storage Bins	PM/PM ₁₀	Yes	Baghouse is used to meet an emission limit of 0.12 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)
LSL Flying Cutoff Saw	PM/PM ₁₀	Yes	Baghouse is used to meet an emission limit of 0.58 lb/hr. Pre-control emissions exceed 100 tpy.	40 C.F.R. § 64.2(a)

LP submitted a CAM plan for PM/PM₁₀ from the Rotary Dryers, Dry Wafer Storage Bins, and LSL Flying Cutoff Saw. The following table summarizes the CAM proposal.

Unit	Eligible Pollutant	Indicator	Record Frequency
CHU	PM/PM ₁₀ (lb/hr)	ESP Secondary Voltage	Once per Shift
		ESP Primary and Secondary Current	Once per Shift
Rotary Dryers	PM/PM ₁₀	WESP Secondary Voltage	Once per Shift
		WESP Secondary Current	Once per Shift
	VOC	Monitoring requirements of 40 C.F.R. Part 63, Subpart DDDD are sufficient to demonstrate compliance with the lb/hr emission limit.	
OSB Press	VOC	Monitoring requirements of 40 C.F.R. Part 63, Subpart DDDD are sufficient to demonstrate compliance with the lb/hr emission limit.	
Dry Wafer Storage Bins	PM/PM ₁₀	Baghouse Pressure Drop	Once per Shift
LSL Flying Cutoff Saw	PM/PM ₁₀	Baghouse Pressure Drop	Once per Shift

The CAM requirements are incorporated in this license.

F. Central Heating Unit (CHU) and Thermal Oil System (TOS)

The CHU is a wood-fired unit with a design heat input capacity of 278 MMBtu/hr. The CHU is equipped with an emergency vent for use during equipment malfunction. Use of the emergency vent for startup, shutdown, or during normal operations is prohibited.

Fuel use in the CHU is restricted to 538 ton/day on a 12-month rolling average basis and to 768 ton/day on a monthly average basis assuming a higher heating value of 4,350 Btu/lb for the biomass fired. This restriction was included in the requirements of New Source Review (NSR) license A-327-77-3-A (issued May 14, 2010) to ensure emission increases from the LSL project did not exceed significant emissions increase levels.

As described above, the exhaust stream from the CHU is split into two distinct streams based upon heat demand load: the “CHU – Dryers” exhaust stream and “CHU – TOS” exhaust stream.

The CHU – Dryers exhaust stream provides direct-contact heat to the Rotary Dryers (typically representing between 30% and 40% of the heat generated by the CHU). The CHU – Dryers exhaust stream passes through the Rotary Dryers and is sent through each dryer’s centrifugal cyclone and a WESP for control of PM emissions before being routed

through a regenerative thermal oxidizer, referred to as the Dryer RTO, for control of CO, VOC, and HAP emissions. Emissions exhaust through Stack #2. Emissions from Stack #2 are discussed in more detail in the Dryers section of these Findings.

The CHU – TOS exhaust stream provides indirect-contact heat to the TOS (typically representing between 60% and 70% of the heat generated by the CHU). The TOS provides heat for the OSB press, buildings, log ponds, and a steam generator. The steam generator produces steam for use in the LSL Press. The CHU – TOS exhaust stream is sent to a multiple centrifugal cyclone (multiclone) followed by a dry ESP for control of PM emissions and discharged to the ambient air through Stack #1.

1. Control Equipment

PM emissions from the CHU – TOS stack are controlled by a multiclone followed by a two-field ESP. LP shall operate, at a minimum, the number of ESP fields in operation during the most recent stack test demonstrating compliance with licensed PM emission limits. Upon written notification to the Department, and in accordance with the *Bureau of Air Quality's Air Emission Compliance Test Protocol*, LP may perform additional PM emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall LP be relieved of its obligation to meet its licensed emission limits.

2. New Source Performance Standards (NSPS)

New Source Performance Standards titled *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Db applies to steam generating units that commence construction, modification, or reconstruction after June 19, 1984, and have a heat input capacity greater than 100 MMBtu/hr.

The definition of steam generating unit in 40 C.F.R. Part 60, Subpart Db states:

Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

A process heater is defined as:

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

The portion of the CHU exhaust which is routed to the TOS (CHU – TOS) transfers heat to a thermal oil which is considered a heat transfer medium. As such, the CHU - TOS meets the definition of a steam generating unit and is subject to the requirements of 40 C.F.R. Part 60, Subpart Db.

Subpart Db contains applicable emission standards for particulate matter and opacity. These standards apply only to Stack #1 (CHU – TOS) and do not apply to Stack #2 (CHU – Dryers).

The following applicable requirements of 40 C.F.R. Part 60, Subpart Db have been incorporated into this Part 70 license.

a. Standards

- (1) LP shall not exceed a PM emission limit of 0.030 lb/MMBtu from Stack #1. [40 C.F.R. § 60.43b(h)(1)]
- (2) Visible emissions from Stack #1 shall not exceed 20% opacity on a 6-minute block average, except for one 6-minute block average per hour of not more than 27% opacity. [40 C.F.R. § 60.43b(f)]
- (3) The PM and opacity standards apply at all times, except during periods of startup, shutdown, and malfunction. [40 C.F.R. §§ 60.43b(g) and 60.46b(a)]

b. Testing Requirements

LP shall conduct performance testing on Stack #1 to demonstrate compliance with the PM lb/MMBtu emission limit upon request by the Department. [40 C.F.R. § 60.46b(d)]

c. Monitoring Requirements

- (1) LP shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) on Stack #1 and record the output of the system. [40 C.F.R. § 60.48b(a)]
- (2) The span value for the COMS shall be between 60 and 80 percent. [40 C.F.R. § 60.48b(e)(1)]

d. Recordkeeping

- (1) LP shall maintain records of the amounts of fuel combusted in the CHU during each calendar month. [40 C.F.R. § 60.49b(d)(2)]
- (2) LP shall maintain records of opacity. [40 C.F.R. § 60.49b(f)]
- (3) All records required by 40 C.F.R. Part 60, Subpart Db shall be maintained for a period of 2 years following the date of the record. [40 C.F.R. § 60.49b(o)]

e. Reporting

- (1) LP shall submit excess emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as all 6-minute periods during which the average opacity exceeds the standard. [40 C.F.R. § 60.49b(h)]
- (2) The reporting period is each 6-month period. All reports shall be submitted to EPA and to the Department and shall be postmarked by the 30th day following the end of the reporting period. [40 C.F.R. § 60.49b(w)]

3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The CHU – TOS is subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*, 40 C.F.R. Part 63, Subpart DDDDD. The CHU – TOS is considered an existing process heater in the “stoker/sloped grate/others designed to burn wet biomass fuel” subcategory. Process heaters in this subcategory are subject to emission limits in Table 2 and work practice standards in Table 3 of 40 C.F.R. Part 63, Subpart DDDDD.

The CHU – TOS uses an ESP to comply with the PM emission limit demonstrated through stack testing, and is therefore subject to operating limits in Table 4 for opacity, and LP is required to operate a COMS.

The CHU – TOS is subject to a CO emission limit. Compliance is demonstrated through operation of a CO CEMS.

The CHU – TOS is subject to emission limits for hydrogen chloride (HCl) and mercury (Hg). LP intends to demonstrate compliance with these limits through regular stack testing.

The following monitors are considered part of the Continuous Monitoring System (CMS) for the CHU – TOS under 40 C.F.R. Part 63, Subpart DDDDD:

- CO CEMS
- Oxygen (O₂) Monitor
- COMS
- CHU – TOS Operating Load

The CHU – TOS uses definition 2 of startup as follows: The period in which operation of a boiler or process heater is initiated for any purpose. Startup begins with either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy (such as steam or heat) for heating, cooling or process purposes, or producing electricity, or the firing of fuel in a boiler or process heater for any purpose after a shutdown event. Startup ends four hours after when the boiler or process heater supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes, or generates electricity, whichever is earlier.

A summary of some of the currently applicable 40 C.F.R. Part 63, Subpart DDDDD requirements is listed below. LP may be subject to additional requirements based upon the compliance strategy chosen.

a. Emission Limits and Operating Limits

- (1) The CHU – TOS is subject to the following emission limits at all times except for periods of startup and shutdown during which time LP shall comply with the applicable work practice standards:

Pollutant	Emission Limit
PM (filterable)	3.7 x 10 ⁻² lb/MMBtu
CO	720 ppm by volume on a dry basis corrected to 3% O ₂ on a 30-day rolling average
HCl	2.2 x 10 ⁻² lb/MMBtu
Hg	5.7 x 10 ⁻⁶ lb/MMBtu

[40 C.F.R. §§ 63.7500(a)(1) and (f) and Table 2, Rows 1 and 7]

- (2) The CHU – TOS is subject to the following operating limits at all operating times except for periods of startup and shutdown:

- (i) Visible emissions from the CHU – TOS stack shall not exceed 10% opacity or the highest hourly average opacity reading measured during the most recent successful performance test demonstrating compliance with the PM emission limit. Compliance is based on a daily block average.

[40 C.F.R. § 63.7500(a)(2) and Table 4, Row 4(a)]

- (ii) The 30-day rolling average operating load going to the CHU – TOS stack shall not exceed 110% of the highest hourly average operating load (for the CHU – TOS stack only) recorded during the most recent successful performance stack test. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 7]

b. Work Practice Standards

- (1) The CHU does not have a continuous oxygen trim system. Therefore, as a work practice standard LP shall perform annual tune-ups on the CHU as specified in §§ 63.7540(a)(10)(i) through (vi). Each tune-up must be conducted no more than 13 months after the previous tune-up.
[40 C.F.R. §§ 63.7515(d), 63.7540(a)(10), and Table 3, Row 3]
- (2) If the CHU is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 C.F.R. § 63.7540(a)(13)]
- (3) LP shall operate all CMS during startup and shutdown.
[40 C.F.R. § 63.7500(a)(1) and Table 3]
- (4) Startup begins when fuel is fired in the CHU and ends four hours after when the CHU provides any useful thermal energy to the TOS. The CHU is subject to the following work practice standards during startup:
 - (i) LP shall operate all continuous monitoring systems (CMS) during startup.
 - (ii) LP shall use only clean dry biomass as fuel during startup. (See Definitions section.)
 - (iii) Once the CHU starts firing biomass other than clean dry biomass, LP shall engage all applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy.
 - (iv) LP shall engage and operate the multiclone and ESP within one hour of first feeding fuels that are not clean dry biomass.
 - (v) LP shall develop and implement a written startup and shutdown plan, as specified in § 63.7505(e).
[40 C.F.R. § 63.7500(a)(1) and Table 3, Row 5]
- (5) Shutdown begins when no fuel is being fed into the CHU and ends when the CHU is no longer supplying useful thermal energy to the TOS. LP is subject to the following work practice standards during shutdown:
 - (i) LP shall operate all CMS during shutdown.
 - (ii) When firing biomass that does not meet the definition of clean dry biomass during shutdown, LP shall operate PM controls.
[40 C.F.R. § 63.7500(a)(1) and Table 3, Row 6]

c. Fuel Analysis and Performance Tests

- (1) Process heaters that burn a single type of fuel are not required to conduct a fuel analysis. [40 C.F.R. §63.7510(a)(2)(i)]
- (2) Except as provided for in the next paragraph, LP must conduct performance stack tests for PM, HCl, and mercury annually. Annual performance tests must be completed no more than 13 months after the previous performance test. [40 C.F.R. § 63.7515(a)]
- (3) If the performance tests for a given pollutant for at least 2 consecutive years show that emissions are at or below 75% of the emission limit for that pollutant, and there are no changes in the operation of the CHU or its associated air pollution control equipment that could increase emissions, LP may elect to conduct performance tests for that pollutant every third year. The subsequent performance tests must be conducted no more than 37 months after the previous performance test. If a performance stack test shows emissions exceed 75% of the emission limit for a pollutant, LP shall resume conducting annual performance stack testing for that pollutant until all performance stack tests for that pollutant over a 2-year period are at or below 75% of the pollutant's emission limit. [40 C.F.R. §§ 63.7515(b) and (c)]
- (4) LP shall conduct performance tests for PM, HCl, and mercury in accordance with Table 5. [40 C.F.R. § 63.7520(b)]
- (5) LP shall:
 - (i) Conduct performance tests at representative operating load conditions.
 - (ii) Demonstrate compliance and establish operating limits based on these performance tests.
 - (iii) Comply with the operating limit for operating load conditions specified in Table 4 following each performance test and until the next performance test. [40 C.F.R. § 63.7520(c)]
- (6) LP shall conduct a minimum of three separate test runs for each performance test required. [40 C.F.R. § 63.7520(d)]
- (7) LP shall use the methodology in § 63.7520(e) to convert measured concentrations to lb/MMBtu emission rates for compliance purposes. If the measured concentration is below the detection level of the method used, LP shall use the method detection level as the measured emissions level for the pollutant in calculating compliance. [40 C.F.R. §§ 63.7520(e) and (f)]

d. Continuous Compliance and Monitoring Requirements

- (1) At all times, LP must operate and maintain the CHU – TOS, including associated air pollution control equipment and monitoring equipment, 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 Administrator 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 source. [40 C.F.R. § 63.7500(a)(3)]
- (2) LP is not required to develop or submit a site-specific monitoring plan for existing CEMS or COMS operated according to the performance specifications of 40 C.F.R. Part 60, Appendix B and which meet the requirements of § 63.7525. [40 C.F.R. § 63.7505(d)(1)]
- (3) LP shall operate and maintain a CEMS for CO and oxygen according to the procedures in §§ 63.7525(a)(1) – (6). [40 C.F.R. § 63.7525(a)]
- (4) To demonstrate compliance with the alternative CO CEMS emission limit listed in Subpart 5D, Table 2, Row 7(a), LP shall:
 - (i) Continuously monitor CO according to §§ 63.7535(a) and 63.7535;
 - (ii) Maintain a CO emission level below or at the limit listed at all times the CHU – TOS is subject to numeric emission limits;
 - (iii) Keep records of CO levels according to §63.7555(b); and
 - (iv) Record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with the site-specific monitoring plan.
[40 C.F.R. § 63.7540(a)(8)]
- (5) LP shall operate and maintain a COMS according to the procedures in §§ 63.7525(c)(1) – (7). [40 C.F.R. § 63.7525(c)]
- (6) LP shall install, operate, and maintain a CMS in order to demonstrate compliance with the operating load limit in accordance with §§ 63.7525(d)(1) through (5). [40 C.F.R. § 63.7525(d)]
- (7) LP shall monitor and collect CMS data according to 40 C.F.R. § 63.7535.
[40 C.F.R. § 63.7535(a)]
 - (i) LP shall operate the monitoring systems and collect data at all required intervals at all times that the CHU - TOS is operating and compliance is

required, except for periods of monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the facility's site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. LP shall complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. [40 C.F.R. § 63.7535(b)]

- (ii) LP may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. LP shall record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. LP shall use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. [40 C.F.R. § 63.7535(c)]
- (iii) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, no data shall be used that was collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. LP shall calculate monitoring results using all other monitoring data collected while the process is operating. LP shall report all periods when the monitoring system is out of control in the semi-annual report. [40 C.F.R. § 63.7535(d)]
- (iv) Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 except during performance tests conducted to determine compliance with the emission limits or to establish new

operating limits. Operating limits must be confirmed or reestablished during performance tests. [40 C.F.R. § 63.7540(a)(1)]

e. Recordkeeping

- (1) Records shall be kept for a period of 5 years. [40 C.F.R. § 63.7560(b)]
- (2) Records shall be kept on site, or be accessible from on site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. § 63.7560(c)]
- (3) LP shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:
 - (i) Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.7555(a)(1)]
 - (ii) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations; [40 C.F.R. § 63.7555(a)(2)]
 - (iii) For each CEMS or COMS, the records described in 40 C.F.R. §§ 63.7555(b)(1) through (5);
 - (iv) Records required by Table 8 including records of all monitoring data and calculated averages for applicable operating limits (including opacity and operating load) to show continuous compliance with each emission limit; [40 C.F.R. § 63.7555(c)]
 - (v) Monthly fuel use including the types and amounts of fuel fired; [40 C.F.R. § 63.7555(d)(1)]
 - (vi) If LP elects to stack test less frequently than annually, records that document that the emissions in the previous stack test(s) were less than 75% of the applicable emission limit and documentation that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year; [40 C.F.R. § 63.7555(d)(5)]
 - (vii) Records of the occurrence and duration of each malfunction of the CHU – TOS or of the associated air pollution control and monitoring equipment; 40 C.F.R. § 63.7555(d)(6)]
 - (viii) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation; [40 C.F.R. § 63.7555(d)(7)]
 - (ix) Records of the calendar date, time, occurrence, and duration of each startup and shutdown; [40 C.F.R. § 63.7555(d)(9)]
 - (x) Records of the type(s) and amount(s) of fuel used during each startup and shutdown. [40 C.F.R. § 63.7555(d)(10)]

- (xi) During each startup period, records of the time that clean fuel combustion begins, the time when LP begins feeding fuels that are not clean fuels, the time when useful thermal energy is first supplied, and the time when the PM controls (multiclone and ESP) are engaged.
[40 C.F.R. § 63.7555(d)(11)]
- (xii) Records of the hourly flue gas temperature and all hourly CMS data collected during each startup period to confirm the control devices are engaged. [40 C.F.R. § 63.7555(d)(12)]
- (xiii) For the ESP, the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.
[40 C.F.R. § 63.7555(d)(12)(i)]

f. Notifications and Reports

LP shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

- (1) LP shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.
[40 C.F.R. § 63.7545(d)]
- (2) Within 60 days after the date of completing each performance test, LP shall submit the results of the performance test. The performance stack test report must verify that the operating limits for the CHU have not changed or provide documentation of the revised operating limits established.
[40 C.F.R. §§ 63.7515(f) and 63.7550(h)(1)]
- (3) Within 60 days after the date of completing each CEMS performance evaluation, LP shall submit the results of the performance evaluation.
[40 C.F.R. § 63.7550(h)(2)]
- (4) LP shall prepare and submit a compliance report every six months which contains the information contained in § 63.7550(c) as applicable.
[40 C.F.R. § 63.7550(a)]
- (5) Semi-annual compliance reports, results of compliance tests, and results of CEMS performance evaluations shall be submitted electronically to the EPA via their electronic reporting tool (ERT) CEDRI. For any data collected that is not supported by EPA's ERT as listed on the EPA's website at the time of the test/evaluation, LP shall submit the results via mail. [40 C.F.R. § 63.7550(h)]

4. Visible Emissions Regulation, 06-096 C.M.R. ch. 101

The CHU – TOS stack (Stack #1) is exempt from the requirements of *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 because it is subject to visible emission standards under both 40 C.F.R. Part 60 and 40 C.F.R. Part 63.

[06-096 C.M.R. ch. 101, §§ 1(C)(7) and (8)]

5. Emission Limits and Streamlining

For the CHU – TOS, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Note: The standards and limits below apply to the CHU – TOS only. Emissions from the CHU – Dryer system is addressed elsewhere.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.030 lb/MMBtu (see Note 3)	40 C.F.R. Part 60, Subpart Db, § 60.43b(h)(1)	0.030 lb/MMBtu * (see Note 2)
	0.037 lb/MMBtu (see Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 7(b)	
	4.6 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	4.6 lb/hr
PM ₁₀	0.030 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	0.030 lb/MMBtu
	4.6 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	4.6 lb/hr
SO ₂	3.8 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	3.8 lb/hr
NO _x	200 ppm _{dv} @ 7% O ₂ 30-day rolling avg.	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	200 ppm _{dv} @ 7% O ₂ 30-day rolling avg.
	0.30 lb/MMBtu	06-096 C.M.R. ch. 138, § 3(B)(3)	0.23 lb/MMBtu *
	0.23 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	
	35.2 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	35.2 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
CO	400 ppmdv @ 7% O ₂ 30-day rolling avg. (see Note 1)	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	400 ppmdv @ 7% O ₂ 30-day rolling avg. (see Note 1)
	720 ppmdv @ 3% O ₂ 30-day rolling avg. (see Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 7(a)	720 ppmdv @ 3% O ₂ 30-day rolling avg. (see Note 2)
	35.2 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	35.2 lb/hr
VOC	0.60 lb/hr (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)	0.60 lb/hr (as carbon)
HCl	2.2 x 10 ⁻² lb/MMBtu (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 1(a)	2.2 x 10 ⁻² lb/MMBtu (See Note 2)
Hg	5.7 x 10 ⁻⁶ lb/MMBtu (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 1(b)	5.7 x 10 ⁻⁶ lb/MMBtu (See Note 2)
Visible Emissions	20% opacity on a 6-minute block average basis, except for one (1) 6-minute period per hour of not more than 27% opacity (See Note 3)	40 C.F.R. Part 60, Subpart Db, § 60.43b(f)	20% opacity on a 6-minute block average basis, except for one 6-minute period per hour of not more than 27% opacity (See Note 3)
	10% opacity on a daily block average or the highest hourly average opacity reading measured during the last NESHAP performance test (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 4, Row 4(a)	10% opacity on a daily block average or the highest hourly average opacity reading measured during the last NESHAP performance test (See Note 2)

Note 1: This limit applies at all operating times except periods of startup, shutdown, and malfunction or if the unit is operating at less than 50% rated capacity.

[06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

Note 2: This limit applies at all operating times except periods of startup and shutdown.

[40 C.F.R. § 63.7500(f)]

Note 3: This limit applies at all operating times except periods of startup, shutdown, and malfunction.

[40 C.F.R. § 60.43b(g)]

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with the CHU – TOS shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. LP shall demonstrate compliance with the PM lb/MMBtu emission limit through performance testing conducted per the schedule contained in 40 C.F.R. § 63.7515. [40 C.F.R. § 63.7515(a)]
- b. LP shall demonstrate compliance with the PM lb/hr emission limit through performance testing conducted at least once every five calendar years. The next compliance test is due no later than 12/31/2020. The performance testing for PM lb/MMBtu required under 40 C.F.R. § 63.7515 satisfies this testing requirement if results are also provided in lb/hr. [06-096 C.M.R. ch. 115, BACT (A-327-77-2-A) and 38 M.R.S. § 589.2]
- c. LP shall demonstrate compliance with the NO_x ppmdv and lb/MMBtu emission limits through use of a NO_x CEMS on the CHU – TOS stack. [06-096 C.M.R. ch. 117 § 1(B)(2)]
- d. LP shall demonstrate compliance with the CO ppmdv emission limits through the use of a CO CEMS on the CHU – TOS stack. [40 C.F.R. § 63.7525(a) and 06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]
- e. LP shall demonstrate compliance with the visible emission limits through the use of a COMS on the CHU- TOS stack. [40 C.F.R. § 60.48b(a) and 40 C.F.R. § 63.7525(c)]
- f. LP shall demonstrate compliance with the HCl and Hg emission limits per the schedule contained in 40 C.F.R. § 63.7515. [40 C.F.R. § 63.7515(a)]
- g. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, NO_x, CO, and VOC lb/hr emission limits for the CHU – TOS using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]

7. Compliance Assurance Monitoring

CAM is applicable to particulate matter emissions from the CHU - TOS. The CAM monitoring requirements are included in the monitoring sections below.

8. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the CHU and CHU-TOS:

- a. Hours of operation for the CHU on a monthly and calendar year basis.
[06-096 C.M.R ch. 137]
- b. Amount of biomass (tons) fired in the CHU based on fuel feed rates to the unit on a daily, monthly, and calendar year basis. [40 C.F.R. § 60.49b(d)(2), 40 C.F.R. § 63.7555(d)(1), 06-096 C.M.R. ch. 115, BACT (A-327-77-3-A), and 06-096 C.M.R. ch. 137]
- c. The date, time, duration, and reason for all instances where the emergency vent was used. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]
- d. Primary and secondary current of each field in the CHU – TOS ESP monitored continuously and recorded at least once per shift. [06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]
- e. Secondary voltage of each field in the CHU – TOS ESP monitored continuously and recorded at least once per shift.
[06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]
- f. Records of the occurrence and duration of each malfunction of the CHU – TOS or of the associated air pollution control and monitoring equipment;
[40 C.F.R. § 63.7555(d)(6)]
- g. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation;
[40 C.F.R. § 63.7555(d)(7)]
- h. Records of the calendar date, time, occurrence, and duration of each startup and shutdown; [40 C.F.R. § 63.7555(d)(9)]
- i. Records of the type(s) and amount(s) of fuel used during each startup and shutdown; [40 C.F.R. § 63.7555(d)(10)]
- j. During each startup period, records of the time that clean fuel combustion begins, the time when LP begins feeding fuels that are not clean fuels, the time when useful thermal energy is first supplied, and the time when the PM controls (multiclone and ESP) are engaged. [40 C.F.R. § 63.7555(d)(11)]
- k. Records of the hourly flue gas temperature and all hourly CMS data collected during each startup period to confirm the control devices are engaged.
[40 C.F.R. § 63.7555(d)(12)]
- l. For the ESP, the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.
[40 C.F.R. § 63.7555(d)(12)(i)]
- m. Records of any maintenance activities performed (planned or unplanned) on the CHU – TOS ESP. [40 C.F.R. § 70.6(c)(1)]

9. Parameter Monitors

During all operating times, LP shall continuously operate, record data, and maintain records from the following parameter monitors for the CHU and CHU – TOS:

Parameter	Averaging Period	Origin and Authority
Operating Load	30-day rolling average	40 C.F.R. § 63.7525(d)

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the CHU – TOS in accordance with LP’s approved CAM plan:

Parameter	Frequency
ESP Secondary Voltage	Monitor: Continuously Record: Once per Shift
ESP Primary Current	Monitor: Continuously Record: Once per Shift
ESP Secondary Current	Monitor: Continuously Record: Once per Shift

10. CEMS and COMS

For the CHU and CHU – TOS stack, the table below lists the required CEMS and COMS.

Monitor	Units	Averaging Period	Origin and Authority
NO _x CEMS	ppmdv	30-day rolling average	06-096 C.M.R. ch. 117
	lb/MMBtu	1-hour block average	
CO CEMS	ppmdv	30-day rolling average	40 C.F.R. § 63.7525(a) and 06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)
O ₂ CEMS	ppmdv and %	1-hour block average	40 C.F.R. § 63.7525(a)
Opacity COMS	%	6-minute block average daily block average	40 C.F.R. § 60.48b(a) and 40 C.F.R. § 63.7525(c)

G. Dryers

The CHU – Dryers exhaust stream provides direct-contact heat to two rotary dryers (typically representing between 30% and 40% of the heat generated by the CHU). The Rotary Dryers are used for both OSB and LSL production. However, the wafers for OSB and strands for LSL cannot be dried at the same time. Therefore, LP is physically limited to drying OSB wafers or LSL strands at any given time.

When used for OSB productions, one dryer is referred to as the Surface Line Dryer and the other dryer is the Core Line Dryer. The Surface Line Dryer dries the wafers used as the top and bottom surface of the OSB to a moisture content of approximately 2% or less, by weight. The Core Line Dryer dries the wafers used in the core of the OSB to a moisture content of 3% or less, by weight.

When used for LSL production, the dryers are used interchangeably with each dryer capable of drying the wet strands used in the LSL boards.

1. Control Equipment

The CHU – Dryers exhaust stream passes through the Rotary Dryers and is sent through each dryer’s centrifugal cyclone where the wafers, strands, and fines are separated from the exhaust gases. A portion of the exhaust gases from each cyclone is recirculated back to the dryers’ inlet or to the CHU.

After the cyclones, the exhaust gas that is not recirculated is sent to a single wet electrostatic precipitator (WESP) for control of PM emissions before being routed through a regenerative thermal oxidizer, referred to as the Dryer RTO, for control of CO, VOC, and HAP emissions. Emissions exhaust through Stack #2.

LP shall operate, at a minimum, the number of WESP fields in operation during the most recent stack test demonstrating compliance with licensed PM emission limits. Upon written notification to the Department, and in accordance with the *Bureau of Air Quality’s Air Emission Compliance Test Protocol*, LP may perform additional PM emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall LP be relieved of its obligation to meet its licensed emission limits.

CO, VOC, and HAP emissions from the CHU – Dryer stack are controlled by an RTO with a heat input of 13.5 MMBtu/hr firing propane or natural gas. (This heat input does not include the heating value of the process gases combusted.) The process exhaust gases enter through a bed of heated media, which preheat the gases. Once through the media, the gases enter the direct flame chamber. Here pollutants are incinerated and converted to carbon dioxide and water. The gases then pass through another layer of media where the heat in the gases is transferred back to the media. The gases then pass through a valve and are drawn through a fan and discharged up the stack.

LP has a bypass system for emergency situations. In an emergency shutdown, gases bypass the RTO unit and are vented to the atmosphere directly from the WESP via Stack #4.

2. Approved Maintenance

Occasionally, LP must take the Dryer RTO offline to conduct a “bake-out” process. During operation, condensed material and inorganic salts accumulate on the RTO media causing a high pressure drop across the unit which the induced draft fan cannot overcome. During the bake-out process, the dryers are taken off-line, and the media is heated until excess material coating the media is burned off.

The bake-out process takes several hours to complete. The process starts with the warm-up cycle, when the chamber temperature is gradually increased from around 800 degrees Fahrenheit (°F) to approximately 1400 °F. The warm-up cycle takes 2 to 4 hours. Once the chamber is at temperature, air is cycled through the unit for 2 to 3 hours to maintain the temperature at 1400 °F to allow for the bake-out. When the media is cleaned, the system starts a cool-down cycle to bring the chamber temperature back down to 700 or 800 °F. The cool down can take another 2 hours.

As the chamber reaches the desired temperature, the bake-out process can result in higher than normal visible emissions from Stack #2. However, the bake-out process is recommended by the manufacturer and is considered necessary equipment maintenance. Therefore, during the bake-out process, visible emissions from Stack #2 shall not exceed 30% opacity on a 6-minute block average basis except for 30 minutes during which time visible emissions shall not exceed 70% opacity. Each bake-out process warm-up cycle shall not exceed 4 hours.

3. New Source Performance Standards (NSPS)

New Source Performance Standards titled *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Db applies to steam generating units that commence construction, modification, or reconstruction after June 19, 1984, and have a heat input capacity greater than 100 MMBtu/hr.

The definition of steam generating unit in 40 C.F.R. Part 60, Subpart Db states:

Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

A process heater is defined as:

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

The portion of the CHU exhaust which is routed to the Rotary Dryers (CHU – Dryers) is used to remove moisture from wood. This is considered a physical separation process and not a chemical reaction. Therefore, the CHU – Dryers exhaust does not meet the definition of a process heater and this exhaust stream is not subject to 40 C.F.R. Part 60, Subpart Db.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The CHU – Dryer stack is not subject to the *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*, 40 C.F.R. Part 63, Subpart DDDDD. The term “process heater,” as defined in Subpart DDDDD, excludes devices in which the combustion gases come into direct contact with process materials.

LP is subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 C.F.R. Part 63, Subpart DDDD. The Dryers are considered part of the affected source per § 63.2232(b). Requirements of Subpart DDDD are addressed in Section II(M) of this license.

5. Emission Limits and Streamlining

For the CHU – Dryers, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.015 gr/dscf	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	0.015 gr/dscf
	15.6 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	15.6 lb/hr *
	29.91 lb/hr	06-096 C.M.R. ch. 105	
PM ₁₀	15.6 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	15.6 lb/hr
SO ₂	0.43 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	0.43 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
NO _x	32.9 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	32.9 lb/hr
CO	109.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	109.0 lb/hr
VOC	2.25 lb/hr (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-3-A)	2.25 lb/hr (as carbon)
THC	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of rule (See Note 1)	40 C.F.R. Part 63, Subpart DDDD, Table 1B	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of rule (See Note 1)
Visible Emissions	30% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 101, § 3(A)(6)	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance *
	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 140, BPT State-only	

Note 1: This limit applies at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Table 1B of 40 C.F.R. Part 63, Subpart DDDD allows for six compliance options. As an alternative to the 20 ppmvd THC limit, the facility may comply with one of the other five options listed in Table 1B without obtaining prior approval from the Department. [40 C.F.R. § 63.2250(a)]

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with the CHU – Dryers shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. LP shall demonstrate compliance with the PM gr/dscf and lb/hr emission limits through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- b. LP shall demonstrate compliance with the NO_x lb/hr emission limit through performance testing conducted every five calendar years. The next compliance test is due no later than 12/31/2020. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- c. LP shall demonstrate compliance with the THC ppm_{dv} emission limit through use of a CPMS per 40 C.F.R. § 63.2271(a) and Table 7. If LP complies with an alternative limit under 40 C.F.R. Part 63, Subpart DDDD, Table 1B, compliance shall be demonstrated through the requirements of Table 7, as appropriate.
- d. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, CO, and VOC lb/hr emission limits for the CHU – Dryers using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]
- e. LP shall demonstrate compliance with the alternative visible mission limits during RTO bake-out through conducting observations consistent with 40 C.F.R. Part 60, Appendix A, Method 9. Observations shall be started 20 to 30 minutes after the end of the warm-up cycle and shall be conducted for at least 18 minutes. [40 C.F.R. § 70.6(c)(1) and 40 C.F.R. Part 64]
- f. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for Stack #2 through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

7. Compliance Assurance Monitoring

CAM is applicable to particulate matter and VOC emissions from the CHU - Dryers. The CAM monitoring requirements for particulate matter are included in the monitoring sections below. The monitoring requirements of 40 C.F.R. Part 63, Subpart DDDD for the RTO meet the CAM monitoring requirements for volatile organic compounds and are included in Section II(M) below

8. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the CHU – Dryers.

- a. Hours of operation for the Dryers on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
- b. Propane or natural gas usage for the Dryer RTO. [06-096 C.M.R. ch. 137]
- c. The date, time, duration, and reason for all instances where the emergency vent was used. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]
- d. Date, time, and duration of bake-out process including the start/end times of the warm-up cycle. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- e. Records of Method 9 observations conducted during each bake-out process including date, time, and results. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- f. Records of any maintenance activities performed (planned or unplanned) on the Dryer RTO and WESP. [40 C.F.R. § 70.6(c)(1)]

9. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the CHU – Dryers in accordance with LP’s approved CAM plan:

Parameter	Frequency
WESP Secondary Voltage	Monitor: Continuously Record: Once per Shift
WESP Secondary Current	Monitor: Continuously Record: Once per Shift
Bake-Out Visible Emissions	Once, mid-way through the bake-out process

[40 C.F.R. Part 64]

Additional parameter monitors are required by 40 C.F.R. Part 63, Subpart DDDD. See Section II(M) below.

10. CEMS and COMS

There are no CEMS or COMS required for the CHU – Dryers or its associated control equipment.

H. Dry Wafer Storage Bins

The screened dried wafers are conveyed to either one of two dry wafer storage bins. Emissions from the Dry Wafer Storage Bins include PM and VOC.

Emissions of VOC from the Dry Wafer Storage Bins are calculated using the following formula:

$$\text{Tons of VOC/year} = \text{hours of operation per year} \times 0.713 \text{ lb/hr} \div 2000 \text{ lb/ton}$$

1. Control Equipment

LP utilizes a baghouse to control PM emissions from the Dry Wafer Storage Bins. This baghouse vents outside the building.

2. Emission Limits and Streamlining

For the Dry Wafer Storage Bins, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.12 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	0.12 lb/hr *
	29.91 lb/hr	06-096 C.M.R. ch. 105	
VOC	3.1 tpy	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	3.1 tpy
Visible Emissions	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.	06-096 C.M.R. ch. 101, § 3(B)(3)	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.

3. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Dry Wafer Storage Bins shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM lb/hr emission limits for the Dry Wafer Storage Bins using test methods approved by the Department.
[40 C.F.R. § 70.6(c)(1)]
- b. LP shall demonstrate compliance with the VOC tpy emission limit through recordkeeping of hours of operation and the calculation listed above.
[40 C.F.R. § 70.6(c)(1)]
- c. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the Dry Wafer Storage Bins through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

4. Compliance Assurance Monitoring

CAM is applicable to particulate matter emissions from the Dry Wafer Storage Bins. The CAM monitoring requirements are included in the monitoring sections below.

5. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitor for the Dry Wafer Storage Bins:

- a. Hours of operation for the Dry Wafer Storage Bins on a monthly and 12-month rolling total basis. [06-096 C.M.R ch. 137 and 40 C.F.R. § 70.6(c)(1)]
- b. Records of any maintenance activities performed (planned or unplanned) on the Dry Wafer Storage Bin Baghouse. [40 C.F.R. § 70.6(c)(1)]

6. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the Dry Wafer Storage Bins Baghouse in accordance with LP's approved CAM plan:

Parameter	Frequency
Pressure Drop	Record: Once per Shift

[40 C.F.R. Part 64]

7. CEMS and COMS

There are no CEMS or COMS required for the Dry Wafer Storage Bins or its associated control equipment.

I. LSL Flying Cut-off Saw

Flying Cutoff Saws are used to cut the mats to proper size before they enter either the OSB or LSL Presses. Emissions from the LSL Flying Cutoff Saw include PM and VOC. The OSB flying cutoff saw is controlled by the System 4 baghouse, which exhaust indoors and is included under Pneumatic Systems. The LSL flying cutoff saw baghouse exhausts to the atmosphere.

Emissions of VOC from the LSL Flying Cutoff Saw are calculated using the following formula:

$$\text{Tons of VOC/year} = \text{hours of operation per year} \times 1.95 \text{ lb/hr} \div 2000 \text{ lb/ton}$$

1. Control Equipment

LP utilizes a baghouse to control PM emissions from the LSL Flying Cutoff Saw. This baghouse vents outside the building.

2. Emission Limits and Streamlining

For the LSL Flying Cutoff Saw, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.58 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	0.58 lb/hr *
	26.41 lb/hr	06-096 C.M.R. ch. 105	
VOC	8.6 tpy	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	8.6 tpy

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.	06-096 C.M.R. ch. 101, § 3(B)(3)	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.

3. Emission Limit Compliance Methods

Compliance with the emission limits associated with the LSL Flying Cutoff Saw shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM lb/hr emission limits for the LSL Flying Cutoff Saw using test methods approved by the Department.
[40 C.F.R. § 70.6(c)(1)]
- b. LP shall demonstrate compliance with the VOC tpy emission limit through recordkeeping of hours of operation and the calculation listed above.
[40 C.F.R. § 70.6(c)(1)]
- c. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the LSL Flying Cutoff Saw through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

4. Compliance Assurance Monitoring

CAM is applicable to particulate matter emissions from the LSL Flying Cutoff Saw. The CAM monitoring requirements are included in the monitoring sections below.

5. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitor for the LSL Flying Cutoff Saw:

- a. Hours of operation for the LSL Flying Cutoff Saw on a monthly and 12-month rolling total basis. [06-096 C.M.R ch. 137 and 40 C.F.R. § 70.6(c)(1)]

b. Records of any maintenance activities performed (planned or unplanned) on the LSL Flying Cutoff Saw Baghouse. [40 C.F.R. § 70.6(c)(1)]

6. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the LSL Flying Cutoff Saw Baghouse in accordance with LP's approved CAM plan:

Parameter	Frequency
Pressure Drop	Record: Once per Shift

[40 C.F.R. Part 64]

7. CEMS and COMS

There are no CEMS or COMS required for the LSL Flying Cutoff Saw or its associated control equipment.

J. OSB Press

Formed wafer mats are separated into nominal 16' lengths and placed into the 12-opening OSB Press by the press loader. The OSB Press utilizes the heated oil from the CHU – TOS to deliver an effective board pressure of up to approximately 750 psig. The heat and pressure in the OSB Press activates the resin and bonds the product into mats. After the pressing cycle is complete, the pressed boards are sent to the finishing area.

In Major Modification A-327-70-H-A issued June 30, 2006, the production rate of the OSB Press was raised to 600 tons of finished product per day averaged over a 7-day period.

The exhaust from the OSB Press is controlled by the Press RCO/RTO before being exhausted through Stack #3.

1. Control Equipment

VOC emissions from the OSB Press are controlled by equipment that may act as either a Regenerative Catalytic Oxidizer (RCO) or a Regenerative Thermal Oxidizer (RTO). The exhaust gases enter through a bed of heated packed ceramic saddles, which preheat the gases. Once through the saddles, the gases enter the direct flame chamber. Here, pollutants are incinerated and converted to carbon dioxide and water. The gases then pass through another layer of packed ceramic saddles where the heat in the gases is transferred back to the saddles. The gases then pass through a valve and are drawn through a fan and discharged up the stack.

LP is licensed to fire either propane or natural gas in the Press RCO/RTO. When operating as an RTO, the maximum heat input capacity of the two burners combined is 11.2 MMBtu/hr. When used as an RCO, the temperature of the gases can be lower due to the presence of a catalyst. Therefore, the firing rate of the burners is reduced by inserting an orifice in the gas inlet line to physically limit the firing rate to 7.0 MMBtu/hr for both burners combined.

2. Approved Maintenance

Occasionally, LP must take the Press RCO/RTO offline to conduct a “bake-out” process. During operation, condensed material and inorganic salts accumulate on the Press RCO/RTO media causing a high pressure drop across the units which the induced draft fan cannot overcome. During the bake-out process, the OSB Press is taken off-line, and the media is heated until excess material coating the media is burned off.

The bake-out process takes several hours to complete. The process starts with the warm-up cycle, when the chamber temperature is gradually increased from around 800 °F to approximately 1400 °F. The warm-up cycle takes 2 to 4 hours. Once the chamber is at temperature, air is cycled through the unit for 2 to 3 hours to maintain the temperature at 1400 °F to allow for the bake-out. When the media is cleaned, the system starts a cool-down cycle to bring the chamber temperature back down to 700 or 800 °F. The cool down can take another 2 hours.

As the chamber reaches the desired temperature, the bake-out process can result in higher than normal visible emissions from Stack #3. However, the bake-out process is recommended by the manufacturer and is considered necessary equipment maintenance. Therefore, during the bake-out process, visible emissions from Stack #3 shall not exceed 30% opacity on a 6-minute block average basis except for 30 minutes during which time visible emissions shall not exceed 70% opacity. Each bake-out warm-up cycle shall not exceed 4 hours.

3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

LP is subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 C.F.R. Part 63, Subpart DDDD. The OSB Press is considered part of the affected source per § 63.2232(b).

The definition of “reconstituted wood product press” includes units that produce hardboard, medium density fiberboard, particleboard, and oriented strandboard. Therefore, the OSB Press is considered a reconstituted wood product press. Requirements of Subpart DDDD are addressed in Section II(M) of this license.

4. Emission Limits and Streamlining

For the OSB Press, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

When the Press RCO/RTO is operating as an RCO			
Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.015 gr/dscf	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	0.015 gr/dscf
	12.3 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	12.3 lb/hr *
	26.41 lb/hr	06-096 C.M.R. ch. 105	
PM ₁₀	12.3 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	12.3 lb/hr
SO ₂	1.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	1.5 lb/hr
NO _x	19.9 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	19.9 lb/hr
CO	9.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	9.5 lb/hr
VOC	1.75 lb/hr (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	1.75 lb/hr (as carbon)
THC	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)	40 C.F.R. Part 63, Subpart DDDD, Table 1B	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)

When the Press RCO/RTO is operating as an RCO			
Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	30% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 101, § 3(A)(6)	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance *
	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 140, BPT State-only	

Note 1: This limit applies at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Table 1B of 40 C.F.R. Part 63, Subpart DDDD allows for six compliance options. As an alternative to the 20 ppmvd THC limit, the facility may comply with one of the other five options listed in Table 1B without obtaining prior approval from the Department. [40 C.F.R. § 63.2250(a)]

When the Press RCO/RTO is operating as an RTO			
Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.015 gr/dscf	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	0.015 gr/dscf
	12.3 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	12.3 lb/hr *
	26.41 lb/hr	06-096 C.M.R. ch. 105	
PM ₁₀	12.3 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	12.3 lb/hr
SO ₂	1.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	1.5 lb/hr
NO _x	20.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	20.5 lb/hr

When the Press RCO/RTO is operating as an RTO			
Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
CO	9.6 lb/hr	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	9.6 lb/hr
VOC	1.75 lb/hr (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	1.75 lb/hr (as carbon)
THC	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)	40 C.F.R. Part 63, Subpart DDDD, Table 1B	20 ppmdv (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)
Visible Emissions	30% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 101, § 3(A)(6)	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance *
	20% opacity on a 6-minute block average basis, except for periods of startup, shutdown, malfunction, or approved maintenance	06-096 C.M.R. ch. 140, BPT State-only	

Note 1: This limit applies at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Table 1B of 40 C.F.R. Part 63, Subpart DDDD allows for six compliance options. As an alternative to the 20 ppmvd THC limit, the facility may comply with one of the other five options listed in Table 1B without obtaining prior approval from the Department. [40 C.F.R. § 63.2250(a)]

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with the OSB Press shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. The Press RCO/RTO is primarily operated as an RCO. Therefore, compliance with the emission limits associated with operation as an RTO shall be demonstrated by

performance testing upon request using test methods approved by the Department.
[40 C.F.R. § 70.6(c)(1)]

- b. LP shall demonstrate compliance with the PM gr/dscf and lb/hr emission limits for operation as an RCO through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019.
[06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
 - c. LP shall demonstrate compliance with the NO_x lb/hr emission limit for operation as an RCO through performance testing conducted every five calendar years. The next compliance test is due no later than 12/31/2020. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
 - d. LP shall demonstrate compliance with the VOC lb/hr emission limit for operation as an RCO through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
 - e. LP shall demonstrate compliance with the THC ppmdv emission limit through use of a CPMS per 40 C.F.R. § 63.2271(a) and Table 7. If LP complies with an alternative limit under 40 C.F.R. Part 63, Subpart DDDD, Table 1B, compliance shall be demonstrated through the requirements of Table 7, as appropriate.
 - f. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, and CO lb/hr emission limits for operation as an RCO using test methods approved by the Department.
[40 C.F.R. § 70.6(c)(1)]
 - g. LP shall demonstrate compliance with the alternative visible mission limits during RTO bake-out through conducting observations consistent with 40 C.F.R. Part 60, Appendix A, Method 9. Observations shall be started 20 to 30 minutes after the end of the warm-up cycle and shall be conducted for at least 18 minutes.
[40 C.F.R. § 70.6(c)(1)]
 - h. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for Stack #3 through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]
6. Compliance Assurance Monitoring

CAM is applicable to volatile organic compound emissions from the OSB Press. The monitoring requirements of 40 C.F.R. Part 63, Subpart DDDD for the RTO/RCO meet the CAM monitoring requirements for volatile organic compounds and are included in Section II(M) below.

7. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the OSB Press. Additional periodic monitors are required by 40 C.F.R. Part 63, Subpart DDDD. See Section II(M) below.

- a. Hours of operation for the OSB Press on a monthly and calendar year basis. [06-096 C.M.R. ch. 137]
- b. Tons of finished product on a daily and 7-day rolling average. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- c. Propane or natural gas usage for the Press RCO/RTO. [06-096 C.M.R. ch. 137]
- d. Date, time, and duration of each bake-out process including the start/end times of the warm-up cycle. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- e. Records of Method 9 observations conducted during each bake-out process including date, time, and results. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- f. Records of any maintenance activities performed (planned or unplanned) on the Press RCO/RTO. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]

8. Parameter Monitors

Parameter monitors are required by 40 C.F.R. Part 63, Subpart DDDD. See Section II(M) below.

9. CEMS and COMS

There are no CEMS or COMS required for the OSB Press or its associated control equipment.

K. LSL Press

Mats from the LSL forming line are sent to the LSL Press. The LSL Press is a steam injection, single-opening type press which makes LSL products with a nominal design thickness of up to 3½ inches. The acceptable mats are transferred to press platens and taken into the press, where steam is injected into the furnish, both curing the board and heating the press. A release agent is sprayed on the bottom face conveying surface of the press screen and the top face surface of the mat furnish to prevent material from sticking to these surfaces.

The steam utilized by the LSL Press is supplied by a steam generator heated by the TOS, which receives indirect heat from the CHU. The platens on the press are heated indirectly by the TOS as well. Only one product line (OSB or LSL) can be operated at a time.

The press activates the applied resin and bonds the product into a single solid entity through heat and pressure. After the pressing cycle is complete, the pressed boards, referred to as billets, are sent to the finishing area.

In Air Emission License A-327-77-3-A issued May 14, 2010, the operation of the LSL Press was restricted to 8,550 hr/year to limit the project to a minor modification.

1. Control Equipment

LP has the physical capability to treat the exhaust from the LSL Press in the existing OSB Press RCO/RTO. However, in air emission license A-327-77-3-A (issued 5/14/2010), LP demonstrated, to the Department’s satisfaction that the RCO/RTO is not a cost-effective or environmentally justified treatment option. Therefore, LP is not required to operate the RCO/RTO for control of emissions from the LSL Press. If LP elects to operate the RCO/RTO to control of emissions from the LSL Press, the OSB Press RCO/RTO emission limits apply for all pollutants except VOC.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

LP is subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 C.F.R. Part 63, Subpart DDDD. The LSL Press is an affected source per § 63.2232(b). However, LSL is defined as an “engineered wood product” which is not a product produced by a reconstituted wood product press. Therefore, the LSL Press is not a reconstituted wood product press and there are no applicable requirements.

Requirements of Subpart DDDD are addressed in Section II(M) of this license.

3. Emission Limits and Streamlining

For the LSL Press, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
VOC	5.85 lb/hr (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)	5.85 lb/hr (as carbon)
Visible Emissions	20% opacity on a 6-minute block average basis	06-096 C.M.R. ch. 101, § 3(B)(4)	20% opacity on a 6-minute block average basis

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with the LSL Press shall be demonstrated in accordance with the methods and frequencies indicated below or other methods or frequencies as approved by the Department.

- a. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the VOC lb/hr emission limits for the LSL Press using test methods approved by the Department. [06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)]
- b. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the LSL Press through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

5. Compliance Assurance Monitoring

CAM is not applicable to the LSL Press.

6. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the LSL Press:

- Hours of operation for the LSL Press on a daily, monthly, and 12-month rolling total basis. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-77-3-A)]

7. Parameter Monitors

There are no parameter monitors required for the LSL Press.

8. CEMS and COMS

There are no CEMS or COMS required for the LSL Press.

L. LSL Edge Seal Process and OSB Spray Booths

LP uses edge seal and other coatings on both the LSL and OSB products. After cooling and finishing, the boards may have edge seal material applied to the cut edges of the products to minimize the amount of moisture entering into the edge of the product. There are two spray booths associated with the LSL process and three spray booths associated with the OSB process. LP minimizes VOC emissions from the spray booths by using materials with a low VOC content.

1. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

LP is subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 C.F.R. Part 63, Subpart DDDD. The Edge Seal Process meets the definition of “group 1 miscellaneous coating operations,” and this subpart contains work practice standards for the Edge Seal Process. Requirements of Subpart DDDD are addressed in Section II(M) of this license.

2. Emission Limits and Streamlining

For the LSL Edge Seal Process and OSB Spray Booths, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
VOC (LSL Process)	1.1 tpy	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	1.1 tpy
VOC (OSB Process)	2.9 tpy	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	2.9 tpy

3. Emission Limit Compliance Methods

Compliance with the emission limits associated with the LSL Edge Seal Process and OSB Spray Booths shall be demonstrated by record keeping including the amount and VOC content of the material used.

4. Compliance Assurance Monitoring

CAM is not applicable to the LSL Edge Seal Process or OSB Spray Booths.

5. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the LSL Edge Seal Process and OSB Spray Booths:

1. Amount and VOC content (by weight) of the coatings used in the LSL Edge Seal Process on a monthly basis. [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]

2. Amount and VOC content (by weight) of the coatings used in the OSB Spray Booths on a monthly basis. [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

6. Parameter Monitors

There are no parameter monitors required for the Edge Seal Process.

7. CEMS and COMS

There are no CEMS or COMS required for the Edge Seal Process.

M. 40 C.F.R. Part 63, Subpart DDDD

LP is subject to *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 C.F.R. Part 63, Subpart DDDD. LP is a plywood and composite wood products manufacturing facility which is a major source of HAP. The affected source under Subpart DDDD includes, but is not limited to the green end operations, resin preparation, Rotary Dryers, Blenders, Formers, OSB Press, LSL Press, board coolers, and finishing operations.

The Dryers meet the definition of “green rotary dryers.”

The definition of “reconstituted wood product press” includes units that produce hardboard, medium density fiberboard, particleboard, and oriented strandboard. Therefore, the OSB Press is considered a reconstituted wood product press.

LSL is defined as an “engineered wood product” which is not a product produced by a reconstituted wood product press. Therefore, the LSL Press is not a reconstituted wood product press.

The LSL Edge Seal Process and OSB Spray Booths meet the definition of “group 1 miscellaneous coating operations.”

For process units not subject to the compliance options or work practice requirements specified in § 63.2240, LP is not required to comply with the compliance options, work practice requirements, performance testing, monitoring, startup, shutdown and malfunction plans (SSMPs), and recordkeeping or reporting requirements of this subpart, except for the initial notification. [40 C.F.R. § 63.2252] This includes, but is not limited to, the Blenders, Formers, LSL Press, and Board Coolers.

A summary of the currently applicable 40 C.F.R. Part 63, Subpart DDDD requirements for LP is listed below.

1. Emission Limits and Operating Requirements

LP utilizes the compliance option for add-on control systems per 40 C.F.R. § 63.2240(b). During the initial performance tests, LP demonstrated compliance using the concentration-based compliance options.

- a. The exhaust from the Dryers and OSB Press must comply with **one** of the following emission limits at all operating times except for periods of process unit or control device startup, shutdown, and malfunction:

Pollutant	Emission Limit
Total Hydrocarbon (THC)	Reduce emissions by 90%
Total Hydrocarbon (THC)	20 ppm _{dv} (as carbon)
Methanol	Reduce emissions by 90%
Methanol	1 ppm _{vd} if uncontrolled emissions entering control device are greater than or equal to 10 ppm _{vd}
Formaldehyde	Reduce emissions by 90%
Formaldehyde	1 ppm _{vd} if uncontrolled emissions entering control device are greater than or equal to 10 ppm _{vd}

[40 C.F.R. §§ 63.2240(b), 63.2250(a), and Table 1B]

- b. The Dryer RTO and Press RCO/RTO are subject to the following operating requirements at all operating times except for periods of process unit or control device startup, shutdown, and malfunction:

- (1) For the Dryer RTO, the 3-hour block average firebox temperature shall be maintained above the minimum temperature established during the most recent performance test.
- (2) When the Press RCO/RTO is operated as an RTO, the 3-hour block average firebox temperature shall be maintained above the minimum temperature established during the most recent performance test.
- (3) When the Press RCO/RTO is operated as an RCO, the 3-hour block average catalytic oxidizer temperature shall be maintained above the minimum temperature established during the most recent performance test.

[40 C.F.R. §§ 63.2240(b), 63.2250(a), and Table 2, Rows 1 and 2]

- c. LP shall use a wood products enclosure (as defined in § 63.2292) on the OSB Press. [40 C.F.R. § 63.2267]
 - d. Startup and shutdown periods shall not exceed the minimum amount of time necessary for these events. [40 C.F.R. § 63.2250(a)]
 - e. LP shall operate and maintain the source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). [40 C.F.R. § 63.2250(b)]
 - f. LP shall develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). [40 C.F.R. § 63.2250(c)]
2. Work Practice Standards

The LSL Edge Seal Process and OSB Spray Booths shall use only non-HAP coatings. [40 C.F.R. § 63.2241(a) and Table 3]

Non-HAP coatings are defined as coatings with HAP contents below 0.1% by mass for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 C.F.R. § 1910.1200(d)(4) and below 1.0% by mass for other HAP compounds.

3. Performance Tests

LP conducted the required initial performance test for the Dryer exhaust in February 2009. LP temporarily shut down the OSB line due to market conditions in 2007, prior to the compliance date of Subpart DDDD. The OSB line was restarted in 2013 and the initial compliance test performed in April 2014.

No other equipment was subject to initial performance tests, and no subsequent performance tests are required by Subpart DDDD. However, LP may establish a different minimum firebox temperature or minimum catalytic oxidizer temperature by submitting the notification specified in § 63.2280(g) and conducting a repeat performance test that demonstrates compliance with the applicable compliance options. [40 C.F.R. §§ 63.2262(k)(2) and (l)(2)]

4. Continuous Compliance and Monitoring

- a. LP shall demonstrate continuous compliance with the emission limits by operating the following continuous parameter monitoring systems (CPMS):

Equipment	CPMS
Dryer RTO	Firebox Temperature
Press RCO/RTO (when operated as RTO)	Firebox Temperature
Press RCO/RTO (when operated as RCO)	Catalytic Oxidizer Temperature

[40 C.F.R. § 63.2271(a) and Table 7, Row 1]

- b. Each CPMS shall be installed, operated, and maintained according to the following:

- (1) The CPMS must be capable of completing a minimum of one cycle of operation for each successive 15-minute period.
- (2) At all times, LP shall maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (3) LP shall maintain records of the results of each inspection, calibration, and validation check.
- (4) Temperature sensors shall be located in a position that provides a representative temperature.
- (5) Temperature sensors shall have a minimum accuracy of 4 °F or 0.75% of the temperature value, whichever is larger.
- (6) If a chart recorder is used, it must have a sensitivity with minor divisions not more than 20 °F.
- (7) LP shall perform an electronic calibration of each temperature sensor at least semiannually according to the procedures in the manufacturer's owner's manual. Following the electronic calibration, LP shall conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor shall yield a reading within 30 °F of the process temperature sensor's reading.
- (8) LP shall conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.
- (9) At least quarterly, LP shall inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

[40 C.F.R. §§ 63.2269(a) and (b)]

- c. Each CPMS shall be operated continuously during all operating times except for monitor malfunctions, associated repairs, and required quality assurance or control activities. For purposes of calculating data averages, LP shall not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or

required quality assurance or control activities. LP shall use all data collected during all other periods of operation. [40 C.F.R. § 63.2270(b)]

- d. When the Press RCO/RTO is operated as an RCO, LP shall check the activity level of a representative sample of the catalyst at least every 12 months and take any necessary corrective action to ensure that the catalyst is performing within its design range. [40 C.F.R. § 63.2271(a) and Table 7, Row 4]

5. Recordkeeping

- a. Records shall be kept for a period of 5 years. [40 C.F.R. § 63.2283(b)]
- b. Records shall be kept on site, or be accessible from on site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. § 63.2283(c)]
- c. LP shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDD including, but not limited to, the following:
 - (1) Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.2282(a)(1)]
 - (2) The records in §§ 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. [40 C.F.R. § 63.2282(a)(2)]
 - (3) Records of performance tests and performance evaluations; [40 C.F.R. § 63.2282(a)(3)]
 - (4) All CPMS data; and [40 C.F.R. § 63.2282(b)]
 - (5) Records of annual catalyst activity checks and subsequent corrective actions. [40 C.F.R. § 63.2282(e)]

6. Notifications and Reports

LP shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDD including, but not limited to, the following:

- a. LP shall notify the Department and EPA within 30 days before taking any of the following actions:
 - (1) Modifying or replacing the control system for any process unit subject to the compliance options and operating requirements of this subpart; or
 - (2) Changing a continuous monitoring parameter or the value or range of values of continuous monitoring parameter for any process unit or control device. [40 C.F.R. § 63.2280(g)]

- b. LP shall prepare and submit a compliance report every six months which contains the information contained in § 63.2281(c) through (g) as applicable.
[40 C.F.R. § 63.7550(a) and Table 9, Row 1]
- c. LP shall notify the Department and EPA by fax or telephone within two working days of any startup, shutdown, or malfunction that is not consistent with the facility's SSMP. LP shall submit a letter to the Department and EPA containing the information in § 63.10(d)(5)(ii) within seven working days after the end of a startup, shutdown, or malfunction that is not consistent with the facility's SSMP.
[40 C.F.R. § 63.2281(a) and Table 9, Row 2]

N. Pneumatic Systems

Materials (including fines, sawdust, and dust generated by various processes, storage bins, and conveying systems located at the facility) are collected by several Pneumatic Systems made up of enclosures, ductwork, fans, and baghouses. The materials collected by the Pneumatic Systems are either reused in the process or used as fuel for the CHU. The Pneumatic System is made up of the following:

- OSB Sander and Trim Saw Baghouse (System 1 and 2 Baghouse)
[There are two blowers but only one baghouse. System 1 blower pulls from the sander and System 2 blower pulls from the OSB trim saws and edger. Both blowers are routed to the same baghouse.]
- Dryer Area Baghouse (System 3 Baghouse)
- OSB Flying Cut-off Saw Baghouse (System 4 Baghouse)
- Dry Fuel Silo Baghouse (System 5 Baghouse)
- OSB Dry Bin and Forming Line Baghouse (System 6 Baghouse)
- Dry Bin/LSL Forming Baghouse (System 7 Baghouse)
- Finishing Area Baghouse (System 8 Baghouse)
- Sander Baghouse (System 9 Baghouse)

The System 4 Baghouse vents indoors. All other baghouse systems exhaust outdoors.

1. Emission Limits and Streamlining

For the Pneumatic Systems, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.	06-096 C.M.R. ch. 101, § 3(B)(3)	10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.

2. Emission Limit Compliance Methods

Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the Pneumatic Systems through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

3. Compliance Assurance Monitoring

CAM is applicable to the LSL Flying Cutoff Saw Baghouse and the Dry Wafer Storage Bin Baghouse. CAM for this equipment is addressed in the sections for that process equipment.

4. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the Pneumatic Systems:

- a. Pressure drop for each baghouse recorded once per shift. [40 C.F.R. § 70.6(c)(1)]
- b. Records of any maintenance activities performed (planned or unplanned) on each baghouse. [40 C.F.R. § 70.6(c)(1)]

5. Parameter Monitors

There are no parameter monitors required for the Pneumatic Systems.

6. CEMS and COMS

There are no CEMS or COMS required for the Pneumatic Systems.

O. TOS Backup Pump

LP operates an emergency back-up pump for the TOS (TOS Backup Pump). The TOS Backup Pump includes a stationary engine rated at 0.3 MMBtu/hr firing distillate fuel with a sulfur content not to exceed 0.0015% by weight. The engine was manufactured and installed in 2007.

1. New Source Performance Standards (NSPS)

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to the TOS Backup Pump since the engine was ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the internal combustion engine also meets the requirements found in *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ.

a. Emergency Engine Designation and Operating Criteria

Under Subpart IIII, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart IIII, 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 or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. § 60.4211(f) and § 60.4219]

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

(1) Manufacturer Certification Requirement

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement

The distillate fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

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

(4) Operation and Maintenance Requirement

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by facility that are approved by the engine manufacturer. LP may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing

The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement

No initial notification is required for emergency engines.
[40 C.F.R. § 60.4214(b)]

(7) Recordkeeping

LP 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. § 60.4214(b)]

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to the TOS Backup Pump. The unit was manufactured in 2007 and is therefore considered a new, emergency stationary reciprocating internal combustion engines at a major HAP source (40 CFR § 63.6590(a)(2)(ii)). However, the unit is also subject to New Source Performance Standards. By meeting the requirements of *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII the unit also meets the requirements found in 40 C.F.R. Part 63, Subpart ZZZZ

3. Emission Limits and Streamlining

For the TOS Backup Pump, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.09 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.09 lb/hr
PM ₁₀	0.09 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.09 lb/hr
SO ₂	negligible	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	negligible
NO _x	1.32 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	1.32 lb/hr
CO	0.29 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.29 lb/hr
VOC	0.11 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.11 lb/hr
Visible Emissions	20% opacity on a 6-minute block average basis, except for periods of startup when LP may comply with work practice standards	06-096 C.M.R. ch. 101, § 3(A)(4)	20% opacity on a 6-minute block average basis, except for periods of startup when LP may comply with work practice standards

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with the TOS Backup Pump shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Compliance Assurance Monitoring

CAM is not applicable to the TOS Backup Pump.

6. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the TOS Backup Pump:

- a. Hours of operating time on a calendar year basis. [06-096 C.M.R. ch. 137]
- b. Log of the duration and reasons for all operating times as they occur.
- c. Records of all maintenance conducted.
- d. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier. [40 C.F.R. Part 60, Subpart III]

7. Parameter Monitors

There are no Parameter Monitors required for the TOS Backup Pump.

8. CEMS and COMS

There are no CEMS or COMS required for the TOS Backup Pump.

P. Fire Pump

LP operates a Fire Pump. The Fire Pump has an engine rated at 1.2 MMBtu/hr which fires distillate fuel with a sulfur content not to exceed 0.0015% by weight. The Fire Pump was manufactured in 1981 and installed in 1982.

1. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable the Fire Pump. The unit is considered an existing, emergency stationary reciprocating internal combustion engines (RICE) at a major HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

Requirements for this subpart are addressed in Section II(R) of this license.

2. Emission Limits and Streamlining

For the Fire Pump, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (“*” denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.37 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.37 lb/hr
PM ₁₀	0.37 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.37 lb/hr
SO ₂	negligible	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	negligible
NO _x	5.29 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	5.29 lb/hr
CO	1.14 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	1.14 lb/hr
VOC	0.42 lb/hr	06-096 C.M.R. ch. 140, BPT Enforceable by State-only	0.42 lb/hr
Visible Emissions	20% opacity on a 6-minute block average basis, except for periods of startup when LP may comply with work practice standards	06-096 C.M.R. ch. 101, § 3(A)(4)	20% opacity on a 6-minute block average basis, except for periods of startup when LP may comply with work practice standards

3. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Fire Pump shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

4. Compliance Assurance Monitoring

CAM is not applicable to the Fire Pump.

5. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the Fire Pump:

- a. Hours of operating time on a calendar year basis. [06-096 C.M.R. ch. 137]
- b. Log of the duration and reasons for all operating times as they occur.
- c. Records of all maintenance conducted.
- d. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier. [40 C.F.R. Part 63, Subpart ZZZZ]

6. Parameter Monitors

There are no Parameter Monitors required for the Fire Pump

7. CEMS and COMS

There are no CEMS or COMS required for the Fire Pump.

Q. Dryer Drum Engines #1 and #2

LP operates two emergency engines associated with the Dryers (Dryer Drum Engines #1 and #2). These engines are used to safely shut down the Dryers in case of unforeseen power outage. Each engine is rated at 16 HP (approximately 0.04 MMBtu/hr) firing propane. The engines were installed in March 2004.

Previously these engines were considered insignificant activities. However, they are now being included in LP's license due to the promulgation of applicable federal regulations.

1. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable Dryer Drum Engines #1 and #2. The units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at a major HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

Requirements for this subpart are addressed in Section II(R) of this license.

2. Emission Limits and Streamlining

Emissions from Dryer Drum Engines #1 and #2 are considered insignificant.

3. Compliance Assurance Monitoring

CAM is not applicable to Dryer Drum Engines #1 and #2.

4. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for Dryer Drum Engines #1 and #2:

- a. Log of the duration and reasons for all operating times as they occur.
- b. Records of all maintenance conducted.

[40 C.F.R. Part 63, Subpart ZZZZ]

5. Parameter Monitors

There are no Parameter Monitors required for Dryer Drum Engines #1 and #2

6. CEMS and COMS

There are no CEMS or COMS required for Dryer Drum Engines #1 and #2.

R. 40 C.F.R. Part 63, Subpart ZZZZ

The Fire Pump and Dryer Drum Engines #1 and #2 are subject to *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* 40 C.F.R. Part 63, Subpart ZZZZ. The Fire Pump is a compression ignition engine which fires distillate fuel. Dryer Drum Engines #1 and #2 are spark ignition engines which fire propane. The Fire Pump and Dryer Drum Engines are existing, emergency RICE located at a major source of HAP emissions.

A summary of the currently applicable 40 C.F.R. Part 63, Subpart ZZZZ requirements is listed below.

1. Emergency Engine Designation and Operating Criteria

Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (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 Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

a. 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 or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

b. 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.

- (1) 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 RICE more than 100 hours per calendar year.
- (2) 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.

The Fire Pump and Dryer Drum Engines #1 and #2 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause

these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

2. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

a. Operation and Maintenance Requirements
 [40 C.F.R. § 63.6602 and Table 2(c)]

	Operating Limitations
Compression ignition (distillate fuel) units: <i>Fire Pump</i>	<ul style="list-style-type: none"> - Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
Spark ignition units: <i>Dryer Drum Engines #1 and #2</i>	<ul style="list-style-type: none"> - Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect spark plugs every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engines shall be operated and maintained according to the manufacturer’s emission-related written instructions, or LP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

b. Optional Oil Analysis Program

LP has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, LP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]

c. Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engines. [40 C.F.R. § 63.6625(f)]

- d. Startup Idle and Startup Time Minimization Requirements
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2c]
- e. Annual Time Limit for Maintenance and Testing
As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]
- f. Recordkeeping
LP shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

S. Portable Engines

LP may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of "portable engine" as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

T. Emissions Statement

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

1. The amount of biomass fired in the CHU on a monthly basis;
2. The amount of distillate fuel fired in the TOS Backup Pump and Fire Pump (each) on a monthly basis;
3. The sulfur content of the distillate fuel fired in the TOS Backup Pump and Fire Pump;
4. Amount and VOC content (by weight) of the edge seal material used on a monthly basis; and
5. Hours of operation for each emission unit on a monthly basis.

In reporting year 2020 and every third year thereafter, LP 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. LP 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)]

U. Facility-Wide VOC Limit

LP is subject to a facility-wide emission limit of 83.6 tpy of VOC (as propane plus formaldehyde) per NSR license A-327-77-3-A (issued 5/14/2010). Currently, the facility-wide potential to emit (PTE) for VOC is 76.6 tpy. Therefore, the previous emission limit is determined to be obsolete and has not been included in this license.

V. Facility Annual Emissions

LP is licensed for the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- CHU – TOS operating for 8,760 hr/year at licensed lb/hr limits. VOC converted from “as carbon” to “as propane plus formaldehyde.”;
- Operation of the Dryers for 8,760 hr/year at licensed lb/hr limits. VOC converted from “as carbon” to “as propane plus formaldehyde.”;
- Operation of the LSL Press for 8,550 hr/year at licensed lb/hr limits. VOC converted from “as carbon” to “as propane plus formaldehyde.”;
- Operation of the OSB Press for 8,760 hr/year at licensed lb/hr limits. VOC converted from “as carbon” to “as propane plus formaldehyde.”;
- Assumes LSL and OSB lines cannot run simultaneously. The emissions shown in the table below are based on the worst case operating scenario (OSB or LSL Press) using licensed emission limits and hours of operation noted here;
- Annual PM and VOC emission limits on the Dry Wafer Storage Bins and LSL Flying Cut-off Saw;
- Annual VOC emission limits on the LSL Edge Seal Process and OSB Spray Booths; and
- Operation of the emergency engines for 100 hr/year.

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

	PM	PM₁₀	SO₂	NO_x	CO	VOC¹
CHU – TOS Stack	20.1	20.1	16.7	154.0	154.0	4.3
CHU – Dryer Vent Stack (RTO Stack)	68.3	68.3	1.9	144.1	477.4	24.0
Dry Wafer Storage Bins	0.5	0.5	–	–	–	3.1
LSL Flying Cut-off Saw	2.5	2.5	–	–	–	8.6
LSL Press	–	–	–	–	–	32.6
OSB Press	53.9	53.9	6.6	89.8	42.0	–
LSL Edge Seal	–	–	–	–	–	1.1
OSB Spray Booths	–	–	–	–	–	2.9
Fire Pump	–	–	–	0.3	0.1	–
TOS Backup Pump	–	–	–	0.1	–	–
Total TPY	145.3	145.3	25.2	388.3	673.5	76.6

¹ All VOC emissions are listed as propane plus formaldehyde.

III. AMBIENT AIR QUALITY ANALYSIS

LP previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-327-77-1-N, issued on 8/28/2006). An additional ambient air quality analysis is not required for this Part 70 License Renewal.

ORDER

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

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

The Department hereby grants the Part 70 License A-327-70-O-R pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to LP pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

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 STATEMENTS

- (1) 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. 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 140]

- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 140]
- (4) 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. 140]
- (5) Notwithstanding any other provision 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 Part 70 license requirement. [06-096 C.M.R. ch. 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in their renewal application.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Dryer RTO & Press RTO/RCO	40 C.F.R. Part 60, Subpart Dc	NSPS for Small Industrial-Commercial-Institutional Steam Generating Units	These are not “steam generating units” as defined in 40 C.F.R. Part 60, Subpart Dc
Dryers	40 C.F.R. Part 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units	The term “steam generating unit” does not include process heaters.
MDI Storage Tank	40 C.F.R. Part 60, Subpart Kb	NSPS for Volatile Organic Liquid Storage Vessels	Exempted from applicability per 10/15/03 Federal Register.
Facility	40 C.F.R. Part 63, Subpart U	NESHAP for Group I Polymers and Resins	Facility does not produce Group I polymers and resins.
Facility	40 C.F.R. Part 63, Subpart W	NESHAP for Epoxy Resins Production and Non-Nylon Polyamides Production	Facility does not produce epoxy resins or non-nylon polyamides.
Facility	40 C.F.R. Part 63, Subpart JJ	NESHAP for Wood Furniture Manufacturing Operations	Facility does not produce wood furniture.

[06-096 C.M.R. ch. 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 C.M.R. ch. 140;
- B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
- C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
- D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for

modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 C.M.R. ch. 140]

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 C.M.R. ch. 140]

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 and this license (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 140. [06-096 C.M.R. ch. 140]
- (3) 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. 140] **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A.
- (5) The licensee shall maintain and operate all emission units and air pollution control 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. 140] **Enforceable by State-only**
- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]
- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, 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 the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 C.M.R. ch. 140]

- (8) 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 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;
 - 2. To demonstrate compliance with the applicable emission standards; or
 - 3. 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. 140] **Enforceable by State-only**

- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of such test results, 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. 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 140]

(11) Upon the written request of 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 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. 140]

- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 C.M.R. ch. 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - B. The compliance status;
 - C. Whether compliance was continuous or intermittent;
 - D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) **Central Heating Unit**

A. Allowable Fuels

- 1. The CHU is licensed to fire biomass as defined in this license. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]
 - 2. Total fuel use in the CHU shall neither exceed 538 tons of biomass per day on a 12-month rolling average basis or 768 tons of biomass per day on a monthly average basis, based on a higher heating value for the biomass of 4,350 Btu/lb. Compliance with these fuel firing rate limits shall be demonstrated by monitoring and recording the fuel feed rates to the unit. [06-096 C.M.R. ch. 115, BACT (A-327-77-3-A)]
- B. The CHU is equipped with an emergency vent that may only be used in the event of an equipment malfunction. Use of the emergency vent for startup and shutdown operations is prohibited. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]

(15) CHU – TOS

A. Control Equipment

1. Particulate matter emissions from the CHU-TOS Stack (Stack #1) shall be controlled by the operation and maintenance of a centrifugal cyclone separator followed by an ESP. LP shall operate, at a minimum, the number of ESP chambers and number of fields per chamber that operated during the most recent demonstration of compliance with the licensed particulate emission limits.

Upon written notification to the Department, and in accordance with the *Bureau of Air Quality's Air Emission Compliance Test Protocol*, LP may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall LP be relieved of its obligation to meet its licensed emission limits.

[06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

2. The CHU – TOS stack shall have a minimum stack height of 100 feet above ground level. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]

B. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

1. Emissions from Stack #1 shall not exceed the following limits:

Pollutant	ppmdv	Origin and Authority	Enforceability
NO _x	200 @ 7% O ₂ 30-day rolling avg.	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
CO	400 @ 7% O ₂ 30-day rolling avg. (See Note 1)	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
	720 @ 3% O ₂ 30-day rolling avg. (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 7(a)	Federally Enforceable

Note 1: This limit applies at all operating times except periods of startup, shutdown, and malfunction or if the unit is operating at less than 50% rated capacity.
[06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

Note 2: This limit applies at all operating times except periods of startup and shutdown.
[40 C.F.R. § 63.7500(f)]

2. Emissions from Stack #1 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.030 (See Note 3)	40 C.F.R. Part 60, Subpart Db, § 60.43b(h)(1)	Federally Enforceable
PM ₁₀	0.030	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
NO _x	0.23	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
HCl	2.2 x 10 ⁻² (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 1(a)	Federally Enforceable
Hg	5.7 x 10 ⁻⁶ (See Note 2)	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 1(b)	Federally Enforceable

Note 2: This limit applies at all operating times except periods of startup and shutdown.
[40 C.F.R. § 63.7500(f)]

Note 3: This limit applies at all operating times except periods of startup, shutdown, and malfunction. [40 C.F.R. § 60.43b(g)]

3. Emissions from Stack #1 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	4.6	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
PM ₁₀	4.6	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
SO ₂	3.8	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
NO _x	35.2	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
CO	35.2	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
VOC	0.60 (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)	Federally Enforceable

C. Visible Emissions

- Visible emissions from Stack #1 shall not exceed 20% opacity on a 6-minute block average except for one 6-minute period per hour of not more than 27% opacity. This standard shall apply at all operating times, except during periods of startup, shutdown, and malfunction. [40 C.F.R. §§ 60.43b(f), 60.43b(g), and 60.46b(a)]
- Visible emissions from Stack #1 shall not exceed 10% opacity or the highest hourly average opacity reading measured during the most recent successful performance test demonstrating compliance with the PM emission limit. Compliance is based on

a daily block average. This standard shall apply at all operating times except during periods of startup and shutdown. [40 C.F.R. §§ 63.7500(a)(2) and (f) and Table 4, Row 4(a)]

- D. LP shall demonstrate compliance with the PM lb/MMBtu emission limit through performance testing conducted per the schedule contained in 40 C.F.R. § 63.7515. [40 C.F.R. § 63.7515(a)]
- E. LP shall demonstrate compliance with the PM lb/hr emission limit through performance testing conducted at least once every five calendar years. The next compliance test is due no later than 12/31/2020. The performance testing for PM lb/MMBtu required under 40 C.F.R. § 63.7515 satisfies this testing requirement if results are also provided in lb/hr. [06-096 C.M.R. ch. 115, BACT (A-327-77-2-A) and 38 M.R.S. § 589.2]
- F. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, NO_x, CO, and VOC lb/hr emission limits for the CHU - TOS using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]
- G. CEMS/COMS
1. LP shall install, calibrate, maintain, and operate a COMS on Stack #1 and record the output of the system. [40 C.F.R. § 60.48b(a)]
 2. The span value of the COMS shall be between 60 and 80 percent. [40 C.F.R. § 60.48b(e)(1)]
 3. LP shall operate and maintain a COMS according to the procedures in §§ 63.7525(c)(1) – (7). [40 C.F.R. § 63.7525(c)]
 4. LP shall demonstrate compliance with the NO_x ppmdv and lb/MMBtu emission limits through use of a NO_x CEMS on Stack #1. [06-096 C.M.R. ch. 117 § 1(B)(2)]
 5. LP shall demonstrate compliance with the CO ppmdv emission limits through the use of a CO CEMS on Stack #1. LP shall operate and maintain a CEMS for CO and oxygen according to the procedures in §§ 63.7525(a)(1) – (6). [40 C.F.R. § 63.7525(a) and 06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

H. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the CHU and CHU-TOS:

1. Hours of operation for the CHU on a monthly and calendar year basis.
[06-096 C.M.R ch. 137]
2. Amount of biomass (tons) fired in the CHU based on fuel feed rates to the unit on a daily, monthly, and calendar year basis. [40 C.F.R. § 60.49b(d)(2), 40 C.F.R. § 63.7555(d)(1), 06-096 C.M.R. ch. 115, BACT (A-327-77-3-A), and 06-096 C.M.R. ch. 137]
3. The date, time, duration, and reason for all instances where the emergency vent was used. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]
4. Primary and secondary current of each field in the CHU – TOS ESP monitored continuously and recorded at least once per shift. [06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]
5. Secondary voltage of each field in the CHU – TOS ESP monitored continuously and recorded at least once per shift. [06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]
6. Records of the occurrence and duration of each malfunction of the CHU – TOS or of the associated air pollution control and monitoring equipment;
[40 C.F.R. § 63.7555(d)(6)]
7. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation;
[40 C.F.R. § 63.7555(d)(7)]
8. Records of the calendar date, time, occurrence, and duration of each startup and shutdown; [40 C.F.R. § 63.7555(d)(9)]
9. Records of the type(s) and amount(s) of fuel used during each startup and shutdown; [40 C.F.R. § 63.7555(d)(10)]
10. During each startup period, records of the time that clean fuel combustion begins, the time when LP begins feeding fuels that are not clean fuels, the time when useful thermal energy is first supplied, and the time when the PM controls (multiclone and ESP) are engaged. [40 C.F.R. § 63.7555(d)(11)]
11. Records of the hourly flue gas temperature and all hourly CMS data collected during each startup period to confirm the control devices are engaged.
[40 C.F.R. § 63.7555(d)(12)]
12. For the ESP, the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.
[40 C.F.R. § 63.7555(d)(12)(i)]
13. Records of any maintenance activities performed (planned or unplanned) on the CHU – TOS ESP. [40 C.F.R. § 70.6(c)(1)]

I. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the CHU – Dryers in accordance with LP’s approved CAM plan:

Parameter	Frequency
ESP Secondary Voltage	Monitor: Continuously Record: Once per Shift
ESP Primary Current	Monitor: Continuously Record: Once per Shift
ESP Secondary Current	Monitor: Continuously Record: Once per Shift

[40 C.F.R. Part 64]

J. 40 C.F.R. Part 60, Subpart Db

Following are applicable requirements of 40 C.F.R. Part 60, Subpart Db not addressed elsewhere in this Order:

1. All records required by 40 C.F.R. Part 60, Subpart Db shall be maintained for a period of 2 years following the date of the record. [40 C.F.R. § 60.49b(o)]
2. LP shall submit excess emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as all 6-minute periods during which the average opacity exceeds the standard. The reporting period is each 6-month period. All reports shall be submitted to EPA and to the Department and shall be postmarked by the 30th day following the end of the reporting period. [40 C.F.R. §§ 60.49b(h) and 60.49b(w)]

K. 40 C.F.R. Part 63, Subpart DDDDD

Following are applicable requirements of 40 C.F.R. Part 63, Subpart DDDDD not addressed elsewhere in this Order:

1. The 30-day rolling average operating load going to the CHU – TOS stack shall not exceed 110% of the highest hourly average operating load (for the CHU – TOS stack only) recorded during the most recent successful performance stack test. The CHU – TOS is subject to this operating limit at all operating times except for periods of startup and shutdown. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 7]

2. Work Practice Standards

- a. LP shall perform annual tune-ups on the CHU as specified in §§ 63.7540(a)(10)(i) through (vi). Each tune-up must be conducted no more than 13 months after the previous tune-up. [40 C.F.R. §§ 63.7515(d), 63.7540(a)(10), and Table 3, Row 3]
- b. If the CHU is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 C.F.R. § 63.7540(a)(13)]
- c. LP shall operate all CMS during startup and shutdown.
[40 C.F.R. § 63.7500(a)(1) and Table 3]
- d. Startup begins when fuel is fired in the CHU and ends four hours after when the CHU provides any useful thermal energy to the TOS. The CHU is subject to the following work practice standards during startup:
 - (1) LP shall operate all continuous monitoring systems (CMS) during startup.
 - (2) LP shall use only clean dry biomass as fuel during startup. (See Definitions section.)
 - (3) Once the CHU starts firing biomass other than clean dry biomass, LP shall engage all applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy.
 - (4) LP shall engage and operate the multiclone and ESP within one hour of first feeding fuels that are not clean dry biomass.
 - (5) LP shall develop and implement a written startup and shutdown plan, as specified in § 63.7505(e).
[40 C.F.R. § 63.7500(a)(1) and Table 3, Row 5]
- e. Shutdown begins when no fuel is being fed into the CHU and ends when the CHU is no longer supplying useful thermal energy to the TOS. LP is subject to the following work practice standards during shutdown:
 - (1) LP shall operate all CMS during shutdown.
 - (2) When firing biomass that does not meet the definition of clean dry biomass during shutdown, LP shall operate PM controls.
[40 C.F.R. § 63.7500(a)(1) and Table 3, Row 6]

3. Fuel Analysis and Performance Tests

- a. Except as provided for in the next paragraph, LP must conduct performance stack tests for PM, HCl, and mercury annually. Annual performance tests must be completed no more than 13 months after the previous performance test.
[40 C.F.R. § 63.7515(a)]

- b. If the performance tests for a given pollutant for at least 2 consecutive years show that emissions are at or below 75% of the emission limit for that pollutant, and there are no changes in the operation of the CHU or its associated air pollution control equipment that could increase emissions, LP may elect to conduct performance tests for that pollutant every third year. The subsequent performance tests must be conducted no more than 37 months after the previous performance test. If a performance stack test shows emissions exceed 75% of the emission limit for a pollutant, LP shall resume conducting annual performance stack testing for that pollutant until all performance stack tests for that pollutant over a 2-year period are at or below 75% of the pollutant's emission limit. [40 C.F.R. §§ 63.7515(b) and (c)]
 - c. LP shall conduct performance tests for PM, HCl, and mercury in accordance with Table 5. [40 C.F.R. § 63.7520(b)]
 - d. LP shall:
 - (1) Conduct performance tests at representative operating load conditions.
 - (2) Demonstrate compliance and establish operating limits based on these performance tests.
 - (3) Comply with the operating limit for operating load conditions specified in Table 4 following each performance test and until the next performance test. [40 C.F.R. § 63.7520(c)]
 - e. LP shall conduct a minimum of three separate test runs for each performance test required. [40 C.F.R. § 63.7520(d)]
 - f. LP shall use the methodology in § 63.7520(e) to convert measured concentrations to lb/MMBtu emission rates for compliance purposes. If the measured concentration is below the detection level of the method used, LP shall use the method detection level as the measured emissions level for the pollutant in calculating compliance. [40 C.F.R. §§ 63.7520(e) and (f)]
4. Continuous Compliance and Monitoring Requirements
- a. At all times, LP must operate and maintain the CHU – TOS, including associated air pollution control equipment and monitoring equipment, 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 Administrator 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 source. [40 C.F.R. § 63.7500(a)(3)]

- b. To demonstrate compliance with the alternative CO CEMS emission limit listed in Subpart DDDDD, Table 2, Row 7(a), LP shall:
- (1) Continuously monitor CO according to §§ 63.7535(a) and 63.7535;
 - (2) Maintain a CO emission level below or at the limit listed at all times the CHU – TOS is subject to numeric emission limits;
 - (3) Keep records of CO levels according to § 63.7555(b); and
 - (4) Record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with the site-specific monitoring plan.
- [40 C.F.R. § 63.7540(a)(8)]
- c. LP shall install, operate, and maintain a CMS in order to demonstrate compliance with the operating load limit in accordance with §§ 63.7525(d)(1) through (5). [40 C.F.R § 63.7525(d)]
- d. LP shall monitor and collect CMS data according to 40 C.F.R. § 63.7535. [40 C.F.R. § 63.7535(a)]
- (1) LP shall operate the monitoring systems and collect data at all required intervals at all times that the CHU - TOS is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. LP shall complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and return the monitoring system to operation as expeditiously as practicable. [40 C.F.R. § 63.7535(b)]
 - (2) LP may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. LP shall record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. LP shall use all

the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.
[40 C.F.R. § 63.7535(c)]

- (3) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, LP shall not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. LP shall calculate monitoring results using all other monitoring data collected while the process is operating. LP shall report all periods when the monitoring system is out of control in the semi-annual report. [40 C.F.R. § 63.7535(d)]
- (4) Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests. [40 C.F.R. § 63.7540(a)(1)]

5. Recordkeeping

- a. Records shall be kept for a period of 5 years. Records shall be kept on site, or be accessible from on site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. §§ 63.7560 (b) and (c)]
- b. LP shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:
 - (1) Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.7555(a)(1)]
 - (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations; [40 C.F.R. § 63.7555(a)(2)]
 - (3) For each CEMS or COMS, the records described in 40 C.F.R. §§ 63.7555(b)(1) through (5);
 - (4) Records required by Table 8 including records of all monitoring data and calculated averages for applicable operating limits (including opacity and

operating load) to show continuous compliance with each emission limit;
[40 C.F.R. § 63.7555(c)]

- (5) If LP elects to stack test less frequently than annually, records that document that the emissions in the previous stack test(s) were less than 75% of the applicable emission limit and documentation that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year. [40 C.F.R. § 63.7555(d)(5)]

6. Notifications and Reports

LP shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

- a. LP shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.
[40 C.F.R. § 63.7545(d)]
- b. Within 60 days after the date of completing each performance test, LP shall submit the results of the performance test. The performance stack test report must verify that the operating limits for the CHU have not changed or provide documentation of the revised operating limits established.
[40 C.F.R. §§ 63.7515(f) and 63.7550(h)(1)]
- c. Within 60 days after the date of completing each CEMS performance evaluation, LP shall submit the results of the performance evaluation.
[40 C.F.R. § 63.7550(h)(2)]
- d. LP shall prepare and submit a compliance report every six months which contains the information contained in § 63.7550(c) as applicable.
[40 C.F.R. § 63.7550(a)]
- e. Semi-annual compliance reports, results of compliance tests, and results of CEMS performance evaluations shall be submitted electronically to the EPA via their electronic reporting tool (ERT) CEDRI. For any data collected that is not supported by EPA's ERT as listed on the EPA's website at the time of the test/evaluation, LP shall submit the results via mail. [40 C.F.R. § 63.7550(h)]

(16) **CHU – Dryers**

A. Control Equipment

1. Emissions of particulate matter from the CHU – Dryer stack shall be controlled by the operation and maintenance of a wet electrostatic precipitator. [06-096 C.M.R. ch. 115, BACT (A-327-72-D-A/R)]
2. Emissions of VOC and HAP from the CHU – Dryer stack shall be controlled by the operation and maintenance of a RTO. [06-096 C.M.R. ch. 115, BACT (A-327-72-D-A/R)]
3. The Dryer RTO 3-hour block average firebox temperature shall be maintained above the minimum temperature established during the most recent performance test at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Startup and shutdown periods shall not exceed the minimum amount of time necessary for these events. [40 C.F.R. §§ 63.2240(b), 63.2250(a), and Table 2, Row 1]
4. LP is licensed to fire propane or natural gas in the Dryer RTO. [06-096 C.M.R. ch. 140, BPT (A-327-70-H-A)] **Enforceable by State-only**
5. The maximum heat input into the Dryer RTO shall not exceed 144 gal/hr (13.5 MMBtu/hr) demonstrated by flow meter logs or fuel flow recording charts. [06-096 C.M.R. ch. 140, BPT (A-327-70-H-A)] **Enforceable by State-only**

B. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

1. Emissions from Stack #2 shall not exceed the following limits:

Pollutant	ppmdv	Origin and Authority	Enforceability
THC	20 (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)	40 C.F.R. Part 63, Subpart DDDD, Table 1B	Federally Enforceable

Note 1: This limit applies at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Table 1B of 40 C.F.R. Part 63, Subpart DDDD allows for six compliance options. As an alternative to the 20 ppmdv THC limit, the facility may comply with one of the other five options listed in Table 1B without obtaining prior approval from the Department. [40 C.F.R. § 63.2250(a)]

2. Emissions from Stack #2 shall not exceed the following limits:

Pollutant	gr/dscf	Origin and Authority	Enforceability
PM	0.015	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable

3. Emissions from Stack #2 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	15.6	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable
PM ₁₀	15.6	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable
SO ₂	0.43	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable
NO _x	32.9	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable
CO	109.0	06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)	Federally Enforceable
VOC	2.25 (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-3-A)	Federally Enforceable

C. Visible Emissions

- Visible emissions from Stack #2 shall not exceed 20% opacity on a 6-minute block average basis except for periods of startup, shutdown, malfunction, or approved maintenance. [06-096 C.M.R. ch. 101, § 3(A)(6)]
- Approved Maintenance

During the bake-out process, visible emissions from Stack #2 shall not exceed 30% opacity on a 6-minute block average basis except for 30 minutes during which time visible emissions shall not exceed 70% opacity. Each bake-out warm-up process shall not exceed 4 hours. [06-096 C.M.R. ch. 101, § 4(C)]
- LP shall demonstrate compliance with the alternative visible emission limits during RTO bake-out through conducting observations consistent with 40 C.F.R. Part 60, Appendix A, Method 9. Observations shall be started 20 to 30 minutes after the end of the warm-up cycle and shall be conducted for at least 18 minutes. [40 C.F.R. § 70.6(c)(1) and 40 C.F.R. Part 64]
- Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for Stack #2 through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

- D. LP shall demonstrate compliance with the PM gr/dscf and lb/hr emission limits through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- E. LP shall demonstrate compliance with the NO_x lb/hr emission limit through performance testing conducted every five calendar years. The next compliance test is due no later than 12/31/2020. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- F. LP shall demonstrate compliance with the THC ppm_{dv} emission limit through use of a CPMS per 40 C.F.R. § 63.2271(a) and Table 7. If LP complies with an alternative limit under 40 C.F.R. Part 63, Subpart DDDD, Table 1B, compliance shall be demonstrated through the requirements of Table 7, as appropriate.
- G. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, CO, and VOC lb/hr emission limits for the CHU – Dryers using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]

H. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the CHU – Dryers:

- 1. Hours of operation for the Dryers a monthly and calendar year basis. [06-096 C.M.R. ch. 137]
- 2. Propane or natural gas usage for the Dryer RTO. [06-096 C.M.R. ch. 137]
- 3. The date, time, duration, and reason for all instances where the emergency vent was used. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N)]
- 4. Date, time, and duration of bake-out process including the start/end times of the warm-up cycle. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- 5. Records of Method 9 observations conducted during each bake-out process including date, time, and results. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- 6. Records of any maintenance activities performed (planned or unplanned) on the Dryer RTO and WESP. [40 C.F.R. § 70.6(c)(1)]

I. Parameter Monitors

- 1. During all operating times, LP shall operate, record data, and maintain records from the following CPMS for the CHU – Dryers:

Parameter	Frequency
Dryer RTO Firebox Temperature	Monitor: Continuously Record: 3-hour average

[40 C.F.R. § 63.2271(a) and Table 7, Row 1]

2. During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the CHU – Dryers in accordance with LP’s approved CAM plan:

Parameter	Frequency
WESP Secondary Voltage	Monitor: Continuously Record: Once per Shift
WESP Secondary Current	Monitor: Continuously Record: Once per Shift
Bake-Out Visible Emissions	Once, 20 to 30 minutes after the end of the warm-up cycle

[40 C.F.R. Part 64]

(17) **Dry Wafer Storage Bins**

A. Control Equipment

Emissions of particulate matter from the Dry Wafer Storage Bins shall be controlled by the operation and maintenance of a baghouse. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]

B. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

1. Emissions from the Dry Wafer Storage Bins shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.12	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

2. Emissions from the Dry Wafer Storage Bins shall not exceed the following limits:

Pollutant	tpy	Origin and Authority	Enforceability
VOC	3.1	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

- C. Visible emissions from the Dry Wafer Storage Bins shall not exceed 10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(B)(3)]

- D. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM lb/hr emission limits for the Dry Wafer Storage Bins using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]
- E. LP shall demonstrate compliance with the VOC tpy emission limit through recordkeeping of hours of operation and the calculation listed below.
[40 C.F.R. § 70.6(c)(1)]

$$\text{Tons of VOC/year} = \text{hours of operation per year} \times 0.713 \text{ lb/hr} \div 2000 \text{ lb/ton}$$

- F. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the Dry Wafer Storage Bins through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]
- G. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the Dry Wafer Storage Bins:

1. Hours of operation for the Dry Wafer Storage Bins on a monthly and calendar year basis. [06-096 C.M.R ch. 137 and C.F.R. § 70.6(c)(1)]
2. Records of any maintenance activities performed (planned or unplanned) on the Dry Wafer Storage Bin Baghouse. [40 C.F.R. § 70.6(c)(1)]

H. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the Dry Wafer Storage Bins Baghouse in accordance with LP's approved CAM plan:

Parameter	Frequency
Pressure Drop	Record: Once per Shift

[40 C.F.R. Part 64]

(18) **LSL Flying Cut-off Saw**

A. Control Equipment

Emissions of particulate matter from the LSL Flying Cut-off Saw shall be controlled by the operation and maintenance of a baghouse.
[06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]

B. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

1. Emissions from the LSL Flying Cut-off Saw shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.58	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

2. Emissions from the LSL Flying Cut-off Saw shall not exceed the following limits:

Pollutant	tpy	Origin and Authority	Enforceability
VOC	8.6	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

- C. Visible emissions from the LSL Flying Cut-off Saw shall not exceed 10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(3)]

- D. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM lb/hr emission limits for the LSL Flying Cut-off Saw using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]

- E. LP shall demonstrate compliance with the VOC tpy emission limit through recordkeeping of hours of operation and the calculation listed below.
[40 C.F.R. § 70.6(c)(1)]

$$\text{Tons of VOC/year} = \text{hours of operation per year} \times 1.95 \text{ lb/hr} \div 2000 \text{ lb/ton}$$

- F. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for the LSL Flying Cut-off Saw through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

G. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitor for the LSL Flying Cut-off Saw:

- Hours of operation for the LSL Flying Cut-off Saw a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 137 and C.F.R. § 70.6(c)(1)]
- Records of any maintenance activities performed (planned or unplanned) on the LSL Flying Cut-off Saw. [40 C.F.R. § 70.6(c)(1)]

H. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following parameter monitors for the LSL Flying Cut-off Saw in accordance with LP's approved CAM plan:

Parameter	Frequency
Pressure Drop	Record: Once per Shift

[40 C.F.R. Part 64]

(19) **OSB Press**

A. Control Equipment

1. Emissions of VOC and HAP from the OSB Press shall be controlled by the operation and maintenance of an RCO/RTO. The main forming line shall not operate unless the Press RCO/RTO is operating. For safety and fire hazard concerns, LP shall be allowed a maximum of 15 minutes from the time the RCO/RTO goes down to shut down the production line. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
2. LP is licensed to fire propane or natural gas in the Press RCO/RTO. [06-096 C.M.R. ch. 140, BPT (A-327-70-H-A)] **Enforceable by State-only**
3. When operated as an RCO, the maximum heat input to the Press RCO/RTO shall not exceed 77.3 gal/hr (7.0 MMBtu/hr). When operating as an RTO, the maximum heat input to the Press RCO/RTO shall not exceed 120 gal/hr (11.2 MMBtu/hr). Compliance shall be demonstrated by flow meter logs or fuel flow recording charts. [06-096 C.M.R. ch. 140, BPT (A-327-70-H-A)] **Enforceable by State-only**
4. When the Press RCO/RTO is operated as an RTO, the 3-hour block average firebox temperature shall be maintained above the minimum temperature established during the most recent performance test at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Startup and shutdown periods shall not exceed the minimum amount of time necessary for these events. [40 C.F.R. §§ 63.2240(b), 63.2250(a), and Table 2, Row 1]
5. When the Press RCO/RTO is operated as an RCO, the 3-hour block average catalytic oxidizer temperature shall be maintained above the minimum temperature established during the most recent performance test at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Startup and shutdown periods shall not exceed the minimum amount of time necessary for these events. [40 C.F.R. §§ 63.2240(b), 63.2250(a), and Table 2, Row 2]

6. When the Press RCO/RTO is operated as an RCO, LP shall check the activity level of a representative sample of the catalyst at least every 12 months and take any necessary corrective action to ensure that the catalyst is performing within its design range. [40 C.F.R. § 63.2271(a) and Table 7, Row 4]
7. LP shall use a wood products enclosure (as defined in § 63.2292) on the OSB Press. [40 C.F.R. § 63.2267]

B. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

1. Emissions from the OSB Press shall not exceed the following limits:

Pollutant	ppmdv	Origin and Authority	Enforceability
THC	20 (as carbon) or alternative option as allowed in Table 1B of the rule (See Note 1)	40 C.F.R. Part 63, Subpart DDDD, Table 1B	Federally Enforceable

Note 1: This limit applies at all operating times except for periods of process unit or control device startup, shutdown, and malfunction. Table 1B of 40 C.F.R. Part 63, Subpart DDDD allows for six compliance options. As an alternative to the 20 ppmvd THC limit, the facility may comply with one of the other five options listed in Table 1B without obtaining prior approval from the Department. [40 C.F.R. § 63.2250(a)]

2. Emissions from the OSB Press shall not exceed the following limits:

Pollutant	gr/dscf	Origin and Authority	Enforceability
PM	0.015	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

3. Emissions from the OSB Press shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	12.3	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
PM ₁₀	12.3	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
SO ₂	1.5	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
NO _x	19.9 (for RCO)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
	20.5 (for RTO)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
CO	9.5 (for RCO)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
	9.6 (for RTO)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable
VOC	1.75 (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

C. Visible Emissions

- When the OSB Press is operating, visible emissions from Stack #3 shall not exceed 20% opacity on a 6-minute block average except for periods of startup, shutdown, malfunction, or approved maintenance. [06-096 C.M.R. ch. 140, BPT]
- Approved Maintenance

During the bake-out process, visible emissions from Stack #3 shall not exceed 30% opacity on a 6-minute block average basis except for 30 minutes during which time visible emissions shall not exceed 70% opacity. Each bake-out process shall not exceed 2 hours. [06-096 C.M.R. ch. 101, § 4(C)]
- LP shall demonstrate compliance with the alternative visible mission limits during RTO bake-out through conducting observations consistent with 40 C.F.R. Part 60, Appendix A, Method 9. Observations shall be started 20 to 30 minutes after the end of the warm-up cycle and shall be conducted for at least 18 minutes. [40 C.F.R. § 70.6(c)(1)]
- Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for Stack #3 through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

- D. The Press RCO/RTO is primarily operated as an RCO. Therefore, compliance with the emission limits associated with operation as an RTO shall be demonstrated by performance testing upon request using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]
- E. LP shall demonstrate compliance with the PM gr/dscf and lb/hr emission limit for operation as an RCO through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- F. LP shall demonstrate compliance with the NO_x lb/hr emission limit for operation as an RCO through performance testing conducted every five calendar years. The next compliance test is due no later than 12/31/2020. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- G. LP shall demonstrate compliance with the VOC lb/hr emission limit for operation as an RCO through performance testing conducted every other calendar year. The next compliance test is due no later than 12/31/2019. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
- H. LP shall demonstrate compliance with the THC ppm_{dv} emission limit through use of a CPMS per 40 C.F.R. § 63.2271(a) and Table 7. If LP complies with an alternative limit under 40 C.F.R. Part 63, Subpart DDDD, Table 1B, compliance shall be demonstrated through the requirements of Table 7, as appropriate.
- I. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the PM₁₀, SO₂, and CO lb/hr emission limits for operation as an RCO using test methods approved by the Department. [40 C.F.R. § 70.6(c)(1)]
- J. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the OSB Press:

1. Hours of operation for the OSB Press a on monthly and calendar year basis. [06-096 C.M.R ch. 137]
2. Tons of finished product on a daily and 7-day rolling average. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
3. Propane or natural gas usage for the Press RCO/RTO. [06-096 C.M.R. ch. 137]
4. Date, time, and duration of each bake-out process including start/end times of the warm-up cycle. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
5. Records of Method 9 observations conducted during each bake-out process including date, time, and results. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]

6. Records of any maintenance activities performed (planned or unplanned) on the Press RCO/RTO. [06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
7. Records of annual catalyst activity checks and subsequent corrective actions. [40 C.F.R. § 63.2282(e)]

K. Parameter Monitors

During all operating times, LP shall operate, record data, and maintain records from the following CPMS for the OSB Press, as applicable:

Parameter	Frequency
Press RTO Firebox Temperature (when operated as an RTO)	Monitor: Continuously Record: Continuously
Press RCO Catalytic Oxidizer Temperature (when operated as an RCO)	Monitor: Continuously Record: Continuously

[40 C.F.R. § 63.2271(a) and Table 7, Row 1]

(20) LSL Press

A. Emission Limits

(Emission limits are on a 1-hour block average unless otherwise stated.)

Emissions from the LSL Press shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
VOC	5.85 (as carbon)	06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)	Federally Enforceable

- B. When the LSL Press is operating, visible emissions from Stack #3 shall not exceed 20% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]
- C. Upon request by the Department, LP shall demonstrate compliance with the visible emission limits for Stack #3 through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]
- D. Upon request by the Department, LP shall conduct performance testing to demonstrate compliance with the VOC lb/hr emission limits for the LSL Press using test methods approved by the Department. [06-096 C.M.R. ch. 115, BACT (A-327-77-4-A)]

E. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the LSL Press:

- Hours of operation for the LSL Press on a daily, monthly, and 12-month rolling total basis. [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-77-3-A)]

(21) **LSL Edge Seal Process and OSB Spray Booths**

A. Emission Limits

Emissions from the LSL Edge Seal Process and OSB Spray Booths shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
VOC (LSL Process)	1.1 tpy	06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)	Federally Enforceable
VOC (OSB Process)	2.9 tpy	06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)	Federally Enforceable

- B. The LSL Edge Seal Process and OSB Spray Booths shall use only non-HAP coatings. [40 C.F.R. § 63.2241(a) and Table 3]

Non-HAP coatings are defined as coatings with HAP contents below 0.1% by mass for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 C.F.R. § 1910.1200(d)(4) and below 1.0% by mass for other HAP compounds.

C. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the LSL Edge Seal Process and OSB Spray Booths:

1. Amount and VOC content (by weight) of the coatings used in the LSL Edge Seal Process on a monthly basis. [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-70-H-A)]
2. Amount and VOC content (by weight) of the coatings used in the OSB Spray Booths on a monthly basis. [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-327-77-2-A)]

(22) **40 C.F.R. Part 63, Subpart DDDD**

Following are applicable requirements of 40 C.F.R. Part 63, Subpart DDDD not addressed elsewhere in this Order:

- A. LP shall operate and maintain the source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i). [40 C.F.R. § 63.2250(b)]
- B. LP shall develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). [40 C.F.R. § 63.2250(c)]
- C. Each CPMS shall be installed, operated, and maintained according to the following:
 - 1. The CPMS must be capable of completing a minimum of one cycle of operation for each successive 15-minute period.
 - 2. At all times, LP shall maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
 - 3. LP shall maintain records of the results of each inspection, calibration, and validation check.
 - 4. Temperature sensors shall be located in a position that provides a representative temperature.
 - 5. Temperature sensors shall have a minimum accuracy of 4 °F or 0.75% of the temperature value, whichever is larger.
 - 6. If a chart recorder is used, it must have a sensitivity with minor divisions not more than 20 °F.
 - 7. LP shall perform an electronic calibration of each temperature sensor at least semiannually according to the procedures in the manufacturer's owner's manual. Following the electronic calibration, LP shall conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor shall yield a reading within 30 °F of the process temperature sensor's reading.
 - 8. LP shall conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.
 - 9. At least quarterly, LP shall inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.
[40 C.F.R. §§ 63.2269(a) and (b)]
- D. Each CPMS shall be operated continuously during all operating times except for monitor malfunctions, associated repairs, and required quality assurance or control activities. For purposes of calculating data averages, LP shall not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. LP shall use all data collected during all other periods of operation. [40 C.F.R. § 63.2270(b)]

E. Recordkeeping

1. Records shall be kept for a period of 5 years. [40 C.F.R. § 63.2283(b)]
2. Records shall be kept on site, or be accessible from on site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. § 63.2283(c)]
3. LP shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDD including, but not limited to, the following:
 - a. Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.2282(a)(1)]
 - b. The records in §§ 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. [40 C.F.R. § 63.2282(a)(2)]
 - c. Records of performance tests and performance evaluations; [40 C.F.R. § 63.2282(a)(3)]
 - d. All CPMS data. [40 C.F.R. § 63.2282(b)]

F. Notifications and Reports

LP shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDD including, but not limited to, the following:

1. LP shall notify the Department and EPA within 30 days before taking any of the following actions:
 - a. Modifying or replacing the control system for any process unit subject to the compliance options and operating requirements of this subpart; or
 - b. Changing a continuous monitoring parameter or the value or range of values of continuous monitoring parameter for any process unit or control device. [40 C.F.R. §63.2280(g)]
2. LP shall prepare and submit a compliance report every six months which contains the information contained in § 63.2281(c) through (g) as applicable. [40 C.F.R. § 63.7550(a) and Table 9, Row 1]
3. LP shall notify the Department and EPA by fax or telephone within two working days of any startup, shutdown, or malfunction that is not consistent with the facility's SSMP. LP shall submit a letter to the Department and EPA containing the information in § 63.10(d)(5)(ii) within seven working days after the end of a startup, shutdown, or malfunction that is not consistent with the facility's SSMP. [40 C.F.R. § 63.2281(a) and Table 9, Row 2]

(23) **Pneumatic Systems**

A. Control Equipment

Emissions of particulate matter from the Pneumatic Systems shall be controlled by the operation and maintenance of baghouses. [06-096 C.M.R. ch. 140, BPT]

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B. Visible emissions from each of the Pneumatic Systems Baggouses shall not exceed 10% opacity on a 6-minute block average basis. LP shall take corrective action if visible emissions exceed 5% opacity on a 6-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(B)(3)]

C. Upon request by the Department, LP shall demonstrate compliance with the visible emission limit for the Pneumatic Systems through performance testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. [40 C.F.R. § 70.6(c)(1)]

D. Periodic Monitoring

LP shall operate, record data, and maintain records from the following periodic monitors for the Pneumatic Systems:

1. Pressure drop for each baghouse recorded once per shift. [40 C.F.R. § 70.6(c)(1)]
2. Records of any maintenance activities performed (planned or unplanned) on each baghouse. [40 C.F.R. § 70.6(c)(1)]

(24) **TOS Backup Pump**

A. Emissions shall not exceed the following:

[06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
TOS Backup Pump	0.09	0.09	neg.	1.32	0.29	0.11

B. Visible emissions from the TOS Backup Pump shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time LP shall comply with the following work practice standards.
[06-096 C.M.R. ch. 101, § 3(A)(4)]

1. LP shall maintain a log (written or electronic) of the date, time, and duration of all engine startups.

2. The engine shall be operated in accordance with the manufacturer's emission-related operating instructions.
 3. LP shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
 4. The engine, including any associated air pollution control equipment, shall be operated 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.
- C. The TOS Backup Pump shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart III, including the following:
1. **Manufacturer Certification**
The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202.
[40 C.F.R. § 60.4205(b)]
 2. **Ultra-Low Sulfur Fuel**
The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 140, BPT]
 3. **Non-Resettable Hour Meter**
A non-resettable hour meter shall be installed and operated on the engine.
[40 C.F.R. § 60.4209(a)]
 4. **Annual Time Limit for Maintenance and Testing**
 - a. The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 140, BPT]

- b. LP 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. § 60.4214(b)]

5. Operation and Maintenance

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

(25) **Fire Pump and Dryer Drum Engines #1 and #2**

A. Emissions shall not exceed the following:

[06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Fire Pump	0.37	0.37	neg.	5.29	1.14	0.42

B. Visible emissions from the Fire Pump and Dryer Drum Engines #1 and #2 shall each not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time LP shall comply with the following work practice standards.
[06-096 C.M.R. ch. 101, § 3(A)(4)]

- 1. LP shall maintain a log (written or electronic) of the date, time, and duration of all engine startups.
- 2. The engines shall be operated in accordance with the manufacturer's emission-related operating instructions.
- 3. LP shall minimize the engines' time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
- 4. The engines, including any associated air pollution control equipment, shall be operated 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.

C. The Fire Pump and Dryer Drum Engines #1 and #2 shall each meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:

1. LP shall meet the following operational limitations for the Fire Pump:
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 C.F.R. § 63.6602 and Table 2(c) and 06-096 C.M.R. ch. 140, BPT]

2. LP shall meet the following operational limitations for the Dryer Drum Engines #1 and #2 (each):
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours or operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 C.F.R. § 63.6602 and Table 2(c) and 06-096 C.M.R. ch. 140, BPT]

3. Oil Analysis Program Option
LP has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, LP must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R. § 63.6625(i)]

4. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on each engine.
[40 C.F.R. § 63.6625(f)]
5. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]
 - b. LP shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]
6. Operation and Maintenance
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or LP shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]
7. Startup Idle and Startup Time Minimization
During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and Table 2c]

(26) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a 5-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

(27) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a 6-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

(28) **Parameter Monitor General Requirements**

[06-096 C.M.R. ch. 140 and 117]

A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.

B. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. “Continuously” with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitutes a valid hour.

C. Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the associated emissions unit operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

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(29) **CEMS Recordkeeping**

A. The licensee shall maintain records documenting that all CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 C.M.R. ch. 117, 40 C.F.R. Part 51, Appendix P, and 40 C.F.R. Part 60, Appendices B and F;

B. The licensee shall maintain records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 C.F.R. Part 51, Appendix P; and

- C. The licensee shall maintain records of other data indicative of compliance with the applicable emission standards for those periods when the CEMS or COMS were not in operation or produced invalid data. In the event the Department does not concur with the licensee's compliance determination, the licensee shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(30) **Compliance Assurance Monitoring (CAM) – General Requirements**

- A. The licensee shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan.

[40 C.F.R. Part 64]

- B. Any excursion shall be reported in semiannual reports. If excursions occur, the licensee must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification.

[40 C.F.R. Part 64]

- C. Upon detecting an excursion (as defined in the facility's CAM Plan), the licensee shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 C.F.R. § 64.7(d)]

- D. Prior to making any changes to the approved CAM plan, the licensee shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 C.F.R. § 64.7(e)]

- E. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 C.M.R. ch. 140, BPT]

(31) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS), and Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 C.M.R. ch. 117]

- A. All control equipment downtimes and malfunctions;

- B. All CEMS or COMS downtimes and malfunctions;

- C. All parameter monitor downtimes and malfunctions;

- D. All excess events of emission and operational limitations set by this Order, Statute, state regulations, or federal regulations, as appropriate. The following information shall be reported for each excess event;
 - 1. Standard exceeded;
 - 2. Date, time, and duration of excess event;
 - 3. Amount of air contaminant emitted in excess of the applicable emission standard, expressed in the units of the standard;
 - 4. A description of what caused the excess event;
 - 5. The strategy employed to minimize the excess event; and
 - 6. The strategy employed to prevent reoccurrence.
- E. A report certifying there were no excess emissions, if that is the case.

(32) **Semiannual Reporting**
[06-096 C.M.R. ch. 140]

- A. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
- D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(33) **Annual Compliance Certification**

LP shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31st of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 C.M.R. ch. 140]

(34) **Annual Emission Statement**

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, LP 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. LP shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:
1. The amount of biomass fired in the CHU on a monthly basis;
 2. The amount of distillate fuel fired in the TOS Backup Pump and Fire Pump (each) on a monthly basis;
 3. The sulfur content of the distillate fuel fired in the TOS Backup Pump and Fire Pump;
 4. Amount and VOC content (by weight) of the edge seal material used on a monthly basis; and
 5. Hours of operation for each emission unit on a monthly basis.
[06-096 C.M.R. ch. 137]
- C. In reporting year 2020 and every third year thereafter, LP shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). LP 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)]

(35) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 C.M.R. ch. 102	Open Burning	-
06-096 C.M.R. ch. 109	Emergency Episode Regulation	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standard	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(36) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 C.F.R. Part 82, Subpart F]

(37) **Asbestos Abatement**

When undertaking Asbestos abatement activities, LP shall comply with the *Standard for Asbestos Demolition and Renovation*, 40 C.F.R. Part 61, Subpart M.

(38) **Expiration of a Part 70 license**

A. LP shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(39) **New Source Review**

LP is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-327-70-O-R, expires.

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
GERALD D. REID, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted at least six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 4/27/18

Date of application acceptance: 4/30/18

Date filed with the Board of Environmental Protection:

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

