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

DEPARTMENT ORDER

Louisiana-Pacific Corporation **Aroostook County** **New Limerick, Maine** **A-327-70-R-A**	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License** **Amendment #3**

FINDINGS OF FACT

After review of the Part 70 License amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Louisiana-Pacific Corporation
LICENSE TYPE	Part 70 Significant License Modification
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 a Laminated Strand Lumber (LSL) and specialty engineered wood panel production facility located in New Limerick, Maine.

New Source Review (NSR) license amendment A-327-77-7-M (NSR #7), issued 10/7/2022, addressed the addition of three new fuels to the Central Heating Unit (CHU). The new fuels include specification used oil, solid oily material, and material collected in the facility's wet electrostatic precipitator (WESP) known as E-Tube residual.

B. Emission Equipment

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

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, specification used oil, solid oily materials, E-Tube residual	2007	2008

C. Definitions

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

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

Solid Oily Material means biomass, rags, and other similar organic absorbent materials which are soaked with specification used oil.

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

- It has sufficient liquid content to be free flowing;
- It meets all of the constituent and property standards for specification waste oil as specified in *Waste Oil Management Rules*, 06-096 C.M.R. ch. 860;
- It meets all of the constituent and property standards for used oil contained in 40 C.F.R. § 279.11;
- It does not otherwise exhibit hazardous waste characteristics; and
- It has not been mixed with a hazardous waste.

D. Application Classification

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

LP has requested incorporation into the Part 70 Air License the relevant terms and conditions of NSR license amendment A-327-77-7-M (NSR #7), issued 10/7/2022, pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115. Therefore, this license application was considered a Part 70 Significant License Modification and processed under *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

II. APPLICABLE REQUIREMETNS

In NSR #7, LP proposed the inclusion of specification used oil, solid oily material, and E-Tube residual as allowable fuels for the CHU which is designed and licensed to burn biomass.

A. E-Tube Residual

E-Tube residual is generated from the maintenance and cleaning of the WESP. The WESP collects particulate and wood fiber from the facility's direct-contact wood dryers. Therefore, this material is similar in composition to the biomass fired in the CHU.

1. Non-Hazardous Secondary Material Determination

   In accordance with *Solid Wastes Used As Fuels or Ingredients in Combustion Units*, 40 C.F.R. Part 241, LP affirms that the E-Tube residual meets the legitimacy criteria pursuant to 40 C.F.R. §§ 241.3(b)(1) and 241.3(d)(1). This claim is supported by information provided in a letter to the Department dated October 26, 2021, showing that the E-Tube residual will be managed as a valuable commodity, has a meaningful heating value, and contains contaminants at levels comparable in concentration (or lower) to the traditional fuel it replaces (biomass). Therefore, the E-Tube residual is not considered a solid waste when burned in the CHU[1]. It is a non-hazardous secondary material (NHSM) that is not a solid waste, and it is considered equivalent to the traditional fuel it is intended to replace, i.e., biomass.

2. Modification Determination

   Adding E-Tube residual to the CHU fuel mix does not require any physical changes be made. Since the e E-Tube residual is considered equivalent to the traditional fuel it replaces (biomass) and the CHU is already licensed to fire biomass, adding this fuel

[1] The determination that E-Tube residual is not a solid waste is intended to apply to the applicability of federal air rules only.

was not considered a change in the method of operation. In addition, combustion of the E-Tube residual in the CHU does not result in any emissions increases from this equipment, as the E-Tube residual offsets the use of other similar fuels. Therefore, addition of E-Tube residual to the CHU was not considered a modification and the CHU was not subject to Best Available Control Technology (BACT).

3. 40 C.F.R. Part 60, Subpart Db

   The portion of the CHU exhaust which is routed to the thermal oil system (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 *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units,* 40 C.F.R. Part 60, Subpart Db. The E-Tube residual is an NHSM which is considered a substitute for biomass. As it is considered a type of biomass, adding the E-Tube residual to the fuel mix does not change any of the applicable requirements contained in the rule for the CHU – TOS.

4. 40 C.F.R. Part 63, Subpart DDDDD

   Pursuant 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. The E-Tube residual is an NHSM which is considered a substitute for biomass. As it is considered a type of biomass, adding the E-Tube residual to the fuel mix does not change the unit's subcategory or any applicable compliance requirements contained in this regulation.

B. Specification Used Oil and Solid Oily Material

LP generates used oil on site which is captured from equipment operation, leaks, and maintenance activities. The oil is stored in drums or absorbed and collected by biomass, speedi-dry, absorbent pads, rags, or similar absorbent spill clean-up materials. Up to 4,000 gallons of liquid oil and 10 tons of solid oily material is generated on site. LP mixes the specification used oil and solid oily material with biomass prior to combustion in the CHU.

1. Non-Hazardous Secondary Material Determination

Traditional fuels are defined in 40 C.F.R. § 241.2 as follows (emphasis added):

> *Traditional fuels* means materials that are produced as fuels and are unused products that have not been discarded and therefore, are not solid wastes, including:
>
> (1) Fuels that have been historically managed as valuable fuel products rather than being managed as waste materials, including fossil fuels (e.g., coal, oil and natural gas), their derivatives (e.g., petroleum coke, bituminous coke, coal tar oil, refinery gas, synthetic fuel, heavy recycle, asphalts, blast furnace gas, recovered gaseous butane, and coke oven gas) and cellulosic biomass (virgin wood); and
> (2) alternative fuels developed from virgin materials that can now be used as fuel products, <u>including used oil which meets the specifications outlined in 40 C.F.R. § 279.11</u>, currently mined coal refuse that previously had not been usable as coal, and clean cellulosic biomass. <u>These fuels are not secondary materials or solid wastes unless discarded.</u>

LP has demonstrated that the used oil meets the specifications in 40 C.F.R. § 279.11. Therefore, the specification used oil is considered a traditional fuel and not a solid waste[2].

Biomass, rags, and other similar organic absorbent materials which are soaked with specification used oil are considered to be a mix of two traditional fuels, i.e., biomass and specification used oil. Plastic bags and other non-organic materials are not included in this determination.

2. Modification Determination

Adding specification used oil and biomass-based solid oily material to the CHU fuel mix does not require any physical changes be made. The addition of a new type of traditional fuel (i.e., oil) is a change in the method of operation. However, there was no associated increase in emissions, licensed or actual, because these fuels offset the use of other fuels. Additionally, LP has demonstrated that the specification used oil has contaminant levels equivalent to or lower than that of biomass. Therefore, addition of specification used oil and biomass-based solid oily material to the CHU was not considered a modification and the CHU was not subject to BACT.

[2] The determination that specification used oil is not a solid waste is intended to apply to the applicability of federal air rules only.

3. 40 C.F.R. Part 60, Subpart Db

   As stated above, the CHU – TOS is subject to 40 C.F.R. Part 60, Subpart Db.

   Based on a fuel analysis submitted to the Department, the specification used oil meets the definition of very low sulfur oil contained in the rule. Therefore, the CHU – TOS is exempt from the sulfur dioxide (SO_2) emission limits pursuant to 40 C.F.R. § 60.42b(k)(2).

   NSR License A-327-77-7-M (10/7/2022) established annual limits on the amount of specification used oil and solid oily material which represent an annual capacity factor of significantly less than 10%. Therefore, the CHU – TOS is exempt from the nitrogen oxides (NO_x) emission limits pursuant to 40 C.F.R. § 60.44b(c).

   LP shall maintain records of the amount of each type of fuel combusted each day and calculate the annual capacity factor individually for oil and biomass. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. § 60.49b(d)(1)]

4. 40 C.F.R. Part 63, Subpart DDDDD

   As stated above, the CHU – TOS is subject to 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. Adding specification used oil to the CHU fuel mix will not change the unit's subcategory as it will still be a unit <u>designed to burn</u> wet biomass fuel. However, it will no longer be a unit which fires a single type of fuel.

   LP demonstrates compliance with the particulate matter (PM), hydrogen chloride (HCl), and mercury standards through performance tests. Units which burn a single type of fuel are not required to conduct a fuel analysis for each type of fuel pursuant to 40 C.F.R. § 63.7510(a)(2)(i). By adding specification used oil, LP becomes subject to 40 C.F.R. §§ 63.7540(a)(4) and (6) which state that if compliance with HCl and mercury emission limits (respectively) are demonstrated through stack testing and the facility plans to burn a new type of fuel or mixture of fuels, the facility must recalculate the maximum HCl and mercury input. If the new HCl and/or mercury input is greater than that of the previous performance test, a new performance test must be conducted within 60 days.

   LP conducted a fuel analysis of the specification used oil which determined that both the HCl and mercury input from the specification used oil is less than that of biomass. Therefore, the combustion of 100% biomass remains the worst-case operating scenario and the requirement to perform a new performance test is not triggered. Future performance tests will continue to be conducted on the previously established schedule.

The Order section of this license contains updates which address these changes to applicable requirements of 40 C.F.R. Part 63, Subpart DDDDD.

C. Facility Annual Emissions

This license amendment will not change the facility's licensed annual emissions.

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 8/26/2006). An additional ambient air quality analysis is not required for this Part 70 License Amendment.

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 Amendment A-327-70-R-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-327-70-O-R, in amendments A-327-70-P-A and A-327-70-Q-A, and the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 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 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 Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following shall replace Condition (14)(A) of Air Emission License A-327-70-O-R:

(14) **Central Heating Unit**

A. Allowable Fuels

1. The CHU is licensed to fire biomass (including bark, wood, mill trimmings, cleanup residue from the blenders and former infeed conveyors, and E-Tube residual), specification used oil, and solid oily materials as those terms are defined in this license. The specification used oil and solid oil materials fired must be produced on site. [06-096 C.M.R. ch. 115, BACT (A-327-77-1-N, 8/28/2006) and BPT (A-327-77-7-M, 10/7/2022]
2. Total fuel use in the CHU shall neither exceed 538 tons of biomass per day on a 12-month rolling average basis nor exceed 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, 5/14/2010)]
3. Combustion of specification used oil shall not exceed 4,000 gallons per year on a calendar year basis. LP shall maintain records of the amount of specification used oil burned in the CHU on a monthly and annual basis.
[06-096 C.M.R. ch. 115, BPT (A-327-77-7-M, 10/7/2022)]
4. Combustion of solid oily material shall not exceed 10 tons per year on a calendar year basis. LP shall maintain records of the amount of sold oily material burned in the CHU on a monthly and annual basis.
[06-096 C.M.R. ch. 115, BPT (A-327-77-7-M, 10/7/2022)]

The following shall replace Condition (15)(H)(2) of Air Emission License A-327-70-O-R:
(Update to citation only.)

(15) **CHU – TOS**

H. Periodic Monitoring

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)(1), 40 C.F.R. § 63.7555(d)(1), 06-096 C.M.R. ch. 115, BACT (A-327-77-3-A, 5/14/2010), and 06-096 C.M.R. ch. 137]

The following new conditions are added to Condition (15)(H) of Air Emission License A-327-70-O-R:

(15) **CHU – TOS**

H. Periodic Monitoring

14. Amount of specification used oil (gallons) and oily solid material (tons) combusted each day. [40 C.F.R. § 60.49b(d)(2)]
15. Records of the calculated annual capacity factor individually for each fuel (oil and biomass). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 C.F.R. § 60.49b(d)(1)]

The following shall replace Condition (15)(K)(3)(d) of Air Emission License A-327-70-O-R:

(15) **CHU – TOS**

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

3. Fuel Analysis and Performance Tests

d. LP shall:

(1) Conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury (more than one performance test may be required);
(2) Demonstrate compliance and establish operating limits based on these performance tests; and
(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)]

The following shall replace Condition (15)(K)(6)(d) of Air Emission License A-327-70-O-R:

(15) **CHU – TOS**

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

6. Fuel Analysis and Performance Tests

d. LP shall prepare and submit a compliance report every six months which contains the information contained in 40 C.F.R. §§ 63.7540(b) and 63.7550(c) as applicable. [40 C.F.R. § 63.7550(a)]

DONE AND DATED IN AUGUSTA, MAINE THIS 6th DAY OF DECEMBER, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____ for ____
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-327-70-O-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/23/2022
Date of application acceptance: 5/23/2022

Date filed with the Board of Environmental Protection:

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

FILED

DEC 06, 2022

State of Maine
Board of Environmental Protection