



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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COMMISSIONER

**Louisiana-Pacific Corporation
Aroostook County
New Limerick, Maine
A-327-77-4-A**

**Departmental
Findings of Fact and Order
New Source Review
NSR #4**

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

FACILITY	Louisiana-Pacific Corporation
LICENSE TYPE	06-096 CMR 115, Minor Modification
NAICS CODES	321219
NATURE OF BUSINESS	Oriented Strand Board Manufacturer
FACILITY LOCATION	240 Station Road, New Limerick, ME

B. Amendment Description

Louisiana-Pacific Corporation (LP) operates an Oriented Strand Board (OSB) manufacturing facility. In 2006, LP applied for, and was issued, a New Source Review (NSR) license (A-327-77-1-N issued 8/28/06) to construct a new Laminated Strand Lumber (LSL) line as well as a new Central Heating Unit (CHU).

The CHU supplies heat to the dryer process stream (CHU-Dryer) and the thermal oil system (CHU-TOS). The CHU replaced heat previously provided by dryer suspension burners and thermal oil heaters which were removed as part of the LSL project.

The LSL Press and CHU became operational in January 2008. A series of stack tests indicated significantly lower levels of VOC emissions from both sources than what was originally estimated in the application for A-327-77-1-N.

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In 2009, LP applied for, and was issued, a NSR amendment (A-327-77-3-A issued 5/14/10) which demonstrated that a proposed limit on the annual average heat input of the CHU, in conjunction with lower VOC emission limits for the CHU-Dryer and CHU-TOS, would allow for a higher emission limit from the LSL press while keeping the net emissions increase from the LSL project below the VOC major modification threshold of 40 tpy. This meant that the LSL project would trigger a Best Available Control Technology (BACT) analysis instead of Lowest Achievable Emission Rate (LAER). LP was able to demonstrate through its BACT analysis that operation of the Regenerative Thermal Oxidizer/Regenerative Catalytic Oxidizer (RTO/RCO) for control of VOCs from the LSL press was not cost effective.

Recent stack testing at the LSL Press has revealed that actual emissions are closer to the VOC emission limit than anticipated in the application for A-327-77-3-A. However, stack testing at the CHU-TOS has indicated that actual VOC emissions from this emission point are consistently below its licensed limit. Therefore, LP has proposed accepting a reduced emission limit for the CHU-TOS in order to directly offset an increased VOC emission limit for the LSL Press. The proposed emission limits do not cause the net emissions increase from the LSL project to meet or exceed the 40 tpy major modification threshold for VOCs and BACT is still appropriate for this equipment.

The current VOC emission limit for the LSL Press is 4.95 lb/hr (as carbon). LP proposes to increase this limit to 5.85 lb/hr (as carbon). The current VOC emission limit for the CHU-TOS is 1.84 lb/hr (as carbon). LP proposes to decrease this limit to 0.60 lb/hr (as carbon). The facility wide VOC emission limit of 83.6 tpy (as propane plus formaldehyde) would remain unchanged.

C. Application Classification

The application for LP does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing or record keeping. This application does seek to modify a Best Available Control Technology (BACT) analysis performed per New Source Review.

Additionally, the modification of a major source is considered a major modification based on whether or not expected emissions increases exceed the "Significant Emission Increase Levels" as given in *Definitions Regulation*, 06-096 CMR 100 (as amended).

The emission increases are determined by subtracting the average actual emissions of the 24 months preceding the modification (or representative 24 months) from the maximum future license allowed emissions. Past actual emissions are unchanged from previous applications addressing the LSL project and are based on average actual emissions from calendar years 2004 and 2005.

Pollutant	Average Past Actual Emissions 2004-2005 (ton/year)	Future Potential Emissions (ton/year)	Net Change (ton/year)	Significance Level (ton/year)
VOC	43.9	83.6	39.7	40

This analysis was done to demonstrate that net emission increases from the LSL project will remain below the major modification threshold. Therefore, this amendment is determined to be a minor modification under *Minor and Major Source Air Emission License Regulations* 06-096 CMR 115 (as amended) since the changes being made are not addressed or prohibited in the Part 70 air emission license. An application to incorporate the requirements of this amendment into the Part 70 air emission license shall be submitted no later than 12 months from commencement of the requested operation.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

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

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

B. Revised BACT Analysis for VOCs

BACT requirements for the LSL project are contained in A-327-77-1-N and A-327-77-3-A. All requirements not related to VOC emissions from the CHU-TOS stack or LSL Press will remain unchanged and the BACT analysis for these units and/or pollutants does not need to be reevaluated.

Since a decrease in the VOC emission limit for the CHU-TOS is proposed, the control technology will remain unchanged and BACT does not need to be reevaluated.

LP submitted a BACT analysis and supplemental information evaluating VOC control technologies for reducing VOC emissions from the LSL Press. Information sources consulted by LP to develop the BACT analysis included

EPA's RACT/BACT/LAER Clearinghouse (RBLC) and the National Council for Air and Stream Improvement (NCASI) published bulletins.

LP concluded that the three most effective and viable controls were the RTO/RCO, a biofilter, and good design/operation. Based on the relatively high cost of VOC reductions from the LSL Press, LP was able to demonstrate to the Department's satisfaction that neither the RTO/RCO or biofilter are currently cost effective treatment options, and therefore do not represent BACT for this source. BACT for VOC from the LSL Press is determined to be compliance with an emission limit of 5.85 lb/hr (as carbon).

C. Annual Emissions

The proposed air license will not affect total licensed emissions of any regulated air pollutant.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC ¹	Lead
CHU – TOS Stack	20.1	20.1	16.7	154.0	154.0	4.3	4.96E-03
CHU – Dryer Vent Stack (RTO Stack)	68.3	68.3	1.9	144.1	477.4	24.0	5.47E-04
LSL Press	53.9	53.9	6.6	89.8	42.0	32.6	-
Pneumatic Systems	30.0	30.0	-	-	-	18.0	-
Edge Seal Process	-	-	-	-	-	1.1	-
MDI Tanks	-	-	-	-	-	Neg.	-
Spray Booths	-	-	-	-	-	3.5	-
Diesel Pump Engine	0.1	0.1	0.1	1.3	1.3	0.1	-
Total TPY	172.4	172.4	25.3	389.2	674.7	83.6	5.5E-03

1. VOC 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. An additional ambient air quality analysis is not required for this amendment.

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ORDER

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

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

The Department hereby grants Air Emission License A-327-77-4-A pursuant to the preconstruction licensing requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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.

SPECIFIC CONDITIONS

The following shall replace Specific Condition (1)(A) of New Source Review License #A-327-77-3-A:

- (1) **LSL Press**
VOC emissions from the LSL Press shall not exceed 5.85 lb/hr (as carbon). LP shall demonstrate compliance with this VOC emission limit through stack testing in accordance with EPA Method 25. At LP's request, testing may be performed in accordance with another Department approved method. Compliance testing shall be performed at the request of the Department.[06-096 CMR 115, BACT]

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The following shall replace Specific Condition (4) of New Source Review License #A-327-77-3-A:

- (2) **Central Heating Unit – Thermal Oil System Stack (CHU – TOS Stack)**
VOC emissions from the CHU – TOS Stack shall not exceed 0.60 lb/hr (as carbon). LP shall demonstrate compliance with this VOC emission limit through stack testing in accordance with 40 CFR Part 60, Appendix A, Method 25 or 25A. Compliance testing shall be performed upon request by the Department. [06-096 CMR 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 24 DAY OF April, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cove for
PATRICIA W. AHO, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/8/13
Date of application acceptance: 3/11/13

Date filed with the Board of Environmental Protection:

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

