Louisiana-Pacific Corporation **Aroostook County** **New Limerick, Maine** **A-327-77-2-A**	**Departmental** **Findings of Fact and Order** **New Source Review License** **Amendment #1**

After review of the air emission license minor modification 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, Section 590, 06-096 CMR 115 and the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	Louisiana-Pacific Corporation (LP)
Part 70 LICENSE NUMBER	A-327-70-A-I
LICENSE TYPE	Chapter 115 Minor Modification
NAIC CODES	321219
NATURE OF BUSINESS	Oriented Strand Board Manufacturer
FACILITY LOCATION	240 Station Road, New Limerick, Maine
NSR AMENDMENT ISSUANCE DATE	September 6, 2007

B. Amendment Description

LP was issued New Source Review (NSR) Air Emission License A-327-77-1-N on September 28, 2006 permitting the expansion of operations at the Oriented Strand Board (OSB) facility in New Limerick, Maine to include an Oriented Strand Lumber (OSL) line. The term OSL has been changed to SolidStart Strand Lumber (SSSL).

LP has requested the following changes to NSR Air Emission License A-327-77-1-N:

1. Incorporation of an edge seal process to apply a sealant to the SSSL after the board press.
2. The installation of a 40 horsepower diesel pump as a backup unit to the thermal oil distribution system instead of the permitted 300 kilowatt, approximately 402 horsepower, diesel-fired emergency generator.
3. Modification of the flow rates for the following baghouses.
    a. New Dry Fuel Silo Baghouse (EP-05)
    b. Dryer Area Baghouse (EP-06)
    c. New Dry Bin/SolidStart Forming Baghouse (EP-09)

d. New Finishing End Baghouse (EP-12)

4. Removal of the Green End Dust Collection Baghouse (EP-07) from the license.

5. Removal of some license conditions as a result of the vacature of 40 CFR Part 63, Subpart DDDDD (Boiler MACT).

C. Application Classification

The modification of a major source is considered a minor modification based on whether or not expected emissions increases exceed the "Significant Emission Increase" levels as given in *Definitions Regulation*, 06-096 CMR 100 (last amended December 1, 2005).

	PM (TPY)	PM_{10} (TPY)	SO_2 (TPY)	NO_x (TPY)	CO (TPY)	VOC (TPY)	Lead (TPY)
Initial SSSL Application (2006)							
CHU-Dryer	51.9	51.9	-0.4	103.1	332.4	17.1	-0.01
CHU-TOS Exhaust	20.1	20.1	16.7	154.0	154.0	23.4	0.005
SSSL Press	53.9	53.9	6.6	89.8	42.0	10.5	-
Pneumatic Systems	26.8	26.8	-	-	-	5.6	-
MDI Tanks	-	-	-	-	-	-	-
Initial Subtotal	**152.7**	**152.7**	**22.9**	**346.9**	**528.4**	**56.6**	**-0.0052**
Revised SSSL Application (2007)							
CHU-Dryer	51.9	51.9	-0.4	103.1	332.4	17.1	-0.01
CHU-TOS Exhaust	20.1	20.1	16.7	154.0	154.0	23.4	0.005
SSSL Press	53.9	53.9	6.6	89.8	42.0	10.5	-
Pneumatic Systems	26.6	26.6				5.6	-
MDI Tanks	-	-	-	-	-	-	-
Edge Seal Process	-	-	-	-	-	1.1	-
Revised Subtotal	**152.5**	**152.5**	**22.9**	**346.9**	**528.4**	**57.7**	**-0.0052**
Major Modification Threshold	25	15	40	40	100	40	0.6
Major Modification?	**Yes**	**Yes**	No	**Yes**	**Yes**	**Yes**	No

Therefore, this amendment is determined to be a minor modification under 09-096 CMR 115 and has been processed as such.

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 Chapter 100 of the Department's regulations. 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 09-096 CMR 115. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts. New and modified sources of CO, NO_X, and PM_{10} are subject to BACT.

For VOC sources, BPT requires a demonstration that emissions are achieving the Lowest Achievable Emission Rate (LAER), as defined in 09-096 CMR 100. LAER is the most stringent emission rate as contained in the implementation plan for any State for that class or category of sources or the most stringent emission limitation achieved in practice by that class or category of source. New and modified sources of VOC associated with this proposed project are subject to LAER.

B. Edge Seal Process

Edge seal is a coating applied to the cut edges of SSSL to minimize the amount of moisture entering into the edge of the product. NSR Air Emission License A-327-77-1-N did not include the addition of an edge seal material to the SSSL. LP now intends to apply edge seal material to every SSSL product produced from the SolidStart manufacturing line. The incorporation of the edge seal process will result in an increase in emissions of VOC only. Potential VOC emissions will be 1.1 tons per year. These emissions are based on a maximum annual sealant usage of 100,000 gallons per year of a specific sealant having a VOC content of 0.0214 pounds per gallon. Other low VOC content edge seals may be used provided VOC emissions from annual sealant usage does not exceed 1.1 tons per year.

LAER for the edge seal process is the use of good engineering practice in operation of the spray booth and use of edge seal materials with low VOC content.

C. Pneumatic Systems

The air flow rates of various pneumatic systems associated with the SolidStart line will be modified. Baghouses for which flow rates will be modified include:

- New Dry Fuel Silo Baghouse (EP-05)
- Dryer Area Baghouse (EP-06)
- New Dry Bin/SolidStart Forming Baghouse (EP-09)
- New Finishing End Baghouse (EP-12)

The Green End Dust Collection Baghouse (EP-07) previously licensed to be installed as part of the SolidStart line will not be installed.

Emission rates for PM from new or relocated baghouses discharging directly outdoors for which air flow rates will be modified as part of the SSSL project were based on a BACT limit exit grain loading of 0.005 gr/ft^3. The following

table details the difference in PM emission from the baghouses between this amendment and the previous amendment:

System Description	Revised PM (TPY)	Previous PM (TPY)
Dry Fuel Silo Baghouse	1.4	1.2
Dryer Area Baghouse	2.0	2.6
Green End Dust Collection	-	3.4
Dry Bin/SolidStart Forming	13.6	10.9
Finishing End Dust Collection	9.6	8.7
Total Emissions Increase for the SolidStart Project	**26.6**	**26.8**

D. Emergency Generator

LP was originally licensed to install an emergency diesel generator, approximately 402 HP, to provide electricity to the facility in the event of a power failure. In lieu of this generator, LP plans to install a 40 HP diesel pump as a backup to the facility's thermal oil distribution system. This unit has a heat input capacity of approximately 0.29 MMBtu/hr and is therefore not required to be licensed under 06-096 CMR 115, Appendix B(3).

E. VOC Offsets

The initial OSL expansion project was licensed for a 56.6 TPY VOC emissions increase. This was identified as significant, thus requiring the review of the project under Non-Attainment New Source Review (NNSR) due to the inclusion of Maine in the Ozone Transport Region. One segment of the NNSR process is the need to obtain offsets for each ton of VOC increase through Maine regulations found in 06-096 CMR 113. 06-096 CMR 113 allows for trading of NO_x emissions credits for VOC offsets, without the application of an additional offset ratio. Subsequent to the development of 06-096 CMR 113, the State of Maine and the State of Massachusetts entered into a Memorandum of Understanding (MOU) for the trading of registered NOx credits in Massachusetts for required NO_x offsets in Maine. Consistent with both the MOU and the allowance of NO_x for VOC trading, LP purchased NO_x emissions credits from a registered source in Massachusetts for use as VOC offsets in Maine.

Consistent with the requirements of 06-096 CMR 113, an offset ratio of 1.15 was applied to the 56.6 TPY VOC emissions increase which resulted in a 65.1 ton offset credit requirement. LP obtained 67 tons of offsets for the SSSL project. The revised SSSL expansion project results in a VOC emissions increase of 1.1 TPY over the initial 56.6 TPY. However, when the 1.15 offset ratio is applied to the revised 57.7 TPY, the result is 66.4 tons; 0.6 tons less than the offsets

obtained by LP for the SSSL project. Therefore, the initial offset quantity of 67 tons is sufficient for this project.

F. Boiler MACT Vacature

On June 8, 2007, the U.S. Court of Appeals, District of Columbia Circuit Court ruled in Natural Resources Defense Council, et al. v. Environmental Protection Agency to vacate the 40 CFR Part 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT). As such, the following conditions affected by the vacature have been removed from this license:

Condition (2)(F)(1): 40 CFR Part 63 notification and record keeping requirements.

Condition (2)(F)(2): Fuel analysis per 40 CFR Part 63.

Condition (2)(G)(8): Fuel analysis for total selected metals.

Condition (2)(G)(9): HCL compliance demonstration.

G. Revised Facility Emissions

Total annual emissions for the facility (in tons), after the OSL expansion, are detailed as follows:

	PM	PM_{10}	SO_2	NO_x	CO	VOC[1]	Lead
CHU-TOS Exhaust	20.1	20.1	16.7	154.0	154.0	23.4	4.96E-03
CHU – Dryer Exhaust	68.3	68.3	1.9	144.1	477.4	42.2	5.47E-04
Press	53.9	53.9	6.6	89.8	42.0	10.5	-
Pneumatic Systems[2]	30.0	30.0	-	-	-	20.0	-
MDI Tanks	-	-	-	-	-	-	-
Spray Booth	-	-	-	-	-	3.5	-
Edge Seal Process	-	-	-	-	-	1.1	-
Emergency Fire Pump	0.1	0.1	0.1	1.3	1.3	0.1	-
Total TPY	**172.4**	**172.4**	**25.3**	**389.2**	**674.7**	**100.8**	**5.5E-03**

1. VOC as propane plus formaldehyde.
2. SSSL pneumatics plus 0.7 lb/hr from OSB production.

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-327-77-2-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.

Condition (2) of Air Emission License A-327-77-1-N shall be replaced by the following:

(2) Central Heating Unit – Thermal Oil System (CHU-TOS) Stack

A. Particulate matter (PM, PM_{10}) emissions from the CHU-TOS Stack shall be controlled by the operation and maintenance of a centrifugal cyclone separator followed by an electrostatic precipitator (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. Data for the following points in the ESP shall be recorded once per shift during operation:

1) Secondary voltages on each field
2) Primary current on each field
3) Secondary current on each field

[MEDEP Chapter 115 BACT]

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.
[MEDEP Chapter 115 BACT]

B. Emissions from the CHU-TOS Stack shall not exceed the following:

Pollutant	lb/MMBtu	Origin and Authority
PM	0.030	40 CFR Part 60, Subpart Db
PM_{10}	0.030	MEDEP Chapter 115, BACT
NO_X	0.23	MEDEP, Chapter 115, BACT

Pollutant	Ppm	Origin and Authority
NO_X	200 ppm_{dv} corrected to 7% O_2 based on an F factor of 9,600 dscf/MMBtu and 7% excess O_2	MEDEP Chapter 117
CO	400 ppm_{dv} corrected to 7%O_2	MEDEP, Chapter 115, BACT

Pollutant	lb/hr	Origin and Authority
PM	4.6	MEDEP, Chapter 115, BACT
PM_{10}	4.6	MEDEP, Chapter 115, BACT
SO_2	3.8	MEDEP, Chapter 115, BACT
NO_X	35.2	MEDEP, Chapter 115, BACT
CO	35.2	MEDEP, Chapter 115, BACT
VOC	5.3	MEDEP, LAER

C. The compliance method for the above emission limit shall be as follows:

Pollutant	Unit of the Standard	Compliance Method
PM	lb/MMBtu	40 CFR Part 60, Appendix A, Method 5
PM_{10}	lb/MMBtu	40 CFR Part 60, Appendix A, Method 5 or Method 201/201A 40 CFR Part 51, Appendix M
NO_X	lb/MMBtu	40 CFR Part 60, Appendix A
NO_X	ppm	CEM
NO_X	lb/hr	40 CFR Part 60, Appendix A
SO_2	lb/hr	40 CFR Part 60, Appendix A
VOC	lb/hr	40 CFR Part 60, Appendix A Method 25 or 25A
CO	lb/hr	40 CFR Part 60, Appendix A
CO	ppm	CEM

D. The CHU-TOS Stack height shall have a minimum stack height of 100 feet above ground level. [06-096 CMR 115]

E. New Source Performance Standards [40 CFR Part 60]

1. The CHU-TOS Stack is subject to 40 CFR Part 60, Subparts A and Db. LP shall provide notifications, maintain records, and submit reports as required by the subpart or approved alternatives.

2. Within 60 days after achieving the maximum production rate at which the CHU will be operated, but no later than 180 days after initial startup of the unit, LP shall perform initial performance testing for PM and opacity in accordance with 40 CFR Part 60, Appendix A.

3. 40 CFR Part 60 Subpart Db requires maintaining records of the amount of fuels combusted each day and calculation of annual capacity factor for each calendar quarter. This requirement was directed toward multi-fuel boilers to determine the annual capacity firing fossil fuel. EPA Region I determined this requirement is not meant to apply to 100% wood fired systems. However, LP shall maintain monthly fuel use records and determine an annual capacity factor on a 12-month rolling average basis with the new annual capacity calculated at the end of each month and submitted annually, unless an alternative monitoring approach is approved by the administrator.

4. Visible emissions from the CHU-TOS Stack shall not exceed 20% opacity on a 6-minute average except for one 6-minute period per hour of not more than 27% opacity. This opacity standard shall apply at all times, except during periods of startup, shutdown, and malfunction.

5. Compliance with the opacity limit for the CHU-TOS Stack shall be demonstrated by means of a continuous opacity monitoring system (COM). The COMs must be installed prior to CHU start-up and subsequently operated, certified, and maintained in accordance with 40 CFR Part 60.

F. Emission Limit Compliance Demonstration

1. LP shall conduct particulate matter (PM) emission testing in accordance with 40 CFR Part 60, Appendix A, Method 5, and demonstrate compliance, once every other year on the CHU-TOS Stack, unless otherwise directed by the Department. [06-096 CMR 115, BACT]

2. Compliance with the NO_x ppm limit shall be based on a 30-day rolling average per Condition 2B and demonstrated by means of a NO_x CEM on the CHU-TOS Stack. [06-096 CMR 117]

3. The NO_x CEM shall be installed prior to CHU start-up and subsequently operated and maintained in accordance with 06-096 CMR 117. [06-096 CMR 117]

4. LP shall maintain a CO concentration below 400 ppm_{dv} corrected to 7%O_2 (30-day rolling average) demonstrated by means of a CO CEMs on the CHU-TOS Stack. This limit applies at all times except periods of startup, shutdown, and malfunction or if the unit is operating at less than 50 percent rated capacity. [06-096 CMR 115, BACT]

5. The CO CEM shall be installed prior to CHU start-up and subsequently operated and maintained in accordance with 06-096 CMR 117. [06-096 CMR 117]

6. LP shall conduct carbon monoxide (CO) emission testing in accordance with 40 CFR Part 60, Appendix A to demonstrate compliance one time in the first year of operation and upon request thereafter for the CHU-TOS Stack. [06-096 CMR 115, BACT]

7. LP shall conduct VOC emission testing to demonstrate compliance one time in the first year of operation and upon request thereafter for the CHU-TOS Stack. VOC testing shall be conducted according to 40 CFR Part 60, Appendix A, Method 25 or 25A. [06-096 CMR 115, LAER]

Condition (4) of Air Emission License A-327-77-1-N has been deleted.

The following is a new condition to Air Emission License A-327-77-1-N:

(6) Edge Seal Process [06-096 CMR 115]

A. VOC emissions from the spray booth used in the SolidStart edge seal process shall be restricted to 1.1 tons per year on a 12-month rolling average basis.

B. Compliance with the VOC emission limit for the spray booth used in the SolidStart edge seal process shall be demonstrated by means of maintaining records for the amount of edge seal material used on a 12-month rolling basis.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 25, 2007
Date of application acceptance: June 25, 2007

Date filed with the Board of Environmental Protection: _____

This Order prepared by Mark Roberts, Bureau of Air Quality.