

**HUBER ENGINEERED WOODS, LLC. )  
AROOSTOOK COUNTY )  
EASTON, MAINE )  
A-62-70-D-A )**

**DEPARTMENTAL  
FINDING OF FACT AND ORDER  
AIR EMISSION LICENSE  
AMENDMENT #2**

After review of the air emissions license 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 Department finds the following facts:

**I. REGISTRATION**

A. Introduction

<b>FACILITY</b>	<b>Huber Engineered Woods, LLC. (Huber)</b>
PART 70 LICENSE NUMBER	A-62-70-A-I
LICENSE TYPE	Chapter 140 Significant License Modification
NAICS CODES	321219
NATURE OF BUSINESS	Oriented Strand Board Manufacturer
FACILITY LOCATION	Easton, Maine
PART 70 LICENSE ISSUANCE DATE	July 31, 2003
PART 70 AMENDMENT ISSUANCE DATE	January 26, 2007
PART 70 LICENSE EXPIRATION DATE	July 31, 2008

B. Amendment Description

Huber is licensed to operate several emission sources at their oriented strand board (OSB) plant located in Easton, Maine. Huber has requested an amendment to temporarily modify certain emission limits in the Part 70 Air Emissions License, A-62-70-A-I. Specifically, Huber is requesting to replace the separate emission limits from Boiler #1, the two wood strand dryers, and press vent with provisions to allow for the combination “bubbling” of emissions between the multi-fuel boiler, dryers, and press vent. Also, Huber has requested to include propane use for boiler and dryer startup.

C. Application Classification

Huber's application was submitted pursuant to the minor modification procedures in Chapter 115 and the Significant License Modification procedures of Chapter 140 of the Department's regulations. A separate New Source Review Chapter 115 license modification, A-62-77-1-A, was drafted to establish the provisions of this NSR amendment. Both Orders, the Chapter 140 Significant License Modification and the Chapter 115 New Source Review license modification, will be issued simultaneously. The application for Huber does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing or record keeping. This application seeks to include the New Source Review provisions that allowed Huber to modify equipment addressed by the facility's Best Available Control Technology (BACT) analysis.

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 MEDEP Chapter 100. The amendment does not involve an increase in the overall licensed emissions from the Easton facility nor any physical changes to the dryers or boiler. Therefore, the modification is considered minor for all pollutants. The Chapter 115 New Source Review amendment updated the Best Available Control Technology (BACT) analysis for the boiler, dryers, and press emissions because Huber's proposal involves replacing the existing BACT limits on those units with a combined new BACT "bubbled" limit. Those provisions are included in this Chapter 140 Significant License Modification.

**II. REVISION DESCRIPTION**

*Combine License Emissions*

Huber has requested to bubble its PM, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits to allow for greater operational flexibility with its existing equipment for an interim period, which will conclude by September 2008. After that date, Huber will be operating new equipment that will provide operational flexibility and comply with the USEPA Boiler and Plywood Maximum Achievable Control Technology (MACT) standards. According to Chapter 115, Huber was required and has submitted a BACT analysis for this minor modification. Also, Huber published a public notice of intent to file and published a public notice of draft license availability with a subsequent 30 day comment period. This license is incorporating the NSR changes into the Part 70 license.

The following summarizes the conclusions of the BACT analysis. Because this proposal involves replacing the existing BACT limits on the boiler, two dryers, and press vent with a new BACT combined limit, an updated BACT analysis was performed on these units. The application dated October 12, 2006 provides more detailed information about the BACT analysis, including more description about the units, control technologies, and cost effectiveness.

### **Summary of Best Available Control Technology (BACT) for Boiler, Dryers, and Press**

#### Particulate Matter

The wood-fired boiler is equipped with cyclones and an Electrified Filter Bed (EFB) for control of PM. Each rotary dryer is equipped with a wet ESP (WESP) for control of PM and condensable VOCs. These controls were previously determined to meet BACT and BPT. Based on a review of the RACT/BACT/LAER Clearinghouse (RBLC) database, in several cases, a WESP is considered BACT for PM for these types of dryers. Therefore, the existing WESPs are considered BACT for the dryers.

Likewise, the RBLC database lists EFB for control of PM emissions from wood-fired boilers. The existing EFB at the Huber facility provides adequate control of PM emissions as confirmed by stack testing. Therefore, the existing EFB is considered BACT for the boiler.

The press vent is not equipped with a PM control device. However, based on the licensed emission limit of 4.4 lb/hr and a exhaust flow of 58,442 cfm (as identified from dispersion modeling parameter), the PM exhaust concentration from the press vent is on the order of 0.01 grains per cubic foot. PM control devices are generally not effective at such low exhaust concentrations. The press vent will be controlled in the future, by October 2008, to meet the provisions of 40 CFR Part 63 Subpart DDDD. Therefore, at this time continued good operating practices are considered BACT for the press vent.

#### Carbon Monoxide and Volatile Organic Compounds

Based on a review of the RBLC database, Regenerative Thermal Oxidizers (RTO) were selected as BACT for CO and VOC for some facilities. However, based on the submitted economic analysis in Huber's application, which took into account the interim period from now to when Huber has to meet the applicable MACT standards, an RTO is not considered cost effective for this license modification. Therefore, the

proposed limits based on good combustion practices are considered BACT for the Boiler #1, two Dryers, and Press.

Nitrogen Oxides

Selective Non-Catalytic Reduction (SNCR) was not required for any wood-fired boiler listed in the RBLC database with a heat input capacity less than 100 MMBtu/hr. Likewise, SNCR was not required for most dryers listed in the RBLC database except for one dryer project. However, this dryer is actually a combination of emission sources with hourly and annual NOx emissions three times greater than NOx emissions from the Huber boiler stack. Because no facilities with Huber’s configuration have been required to install SNCR and because of the short duration of the proposed interim emission limits, the proposed limits, based on good combustion practices, are considered BACT for the boiler, dryers, and press.

**Combine current short-term emission limits from the boiler, press, and two dryers**

Under its existing Part 70 air license, the Easton plant is licensed to operate a multi-fuel boiler, a core flake dryer and a surface flake dryer, and a press as part of its OSB production process. The following table contains the emission limits from the four units established in Huber’s Part 70 air license:

	<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>lb/hr</b>	<b>gr/dscf</b>
<b>Boiler #1</b> Condition (14)	PM	0.12	10.1	---
	PM10	0.12	10.1	---
	NOx	0.40	33.6	---
	SO2	---	0.8	---
	CO	---	50.0	---
	VOC	---	10.0	---
<b>Dryers #1 and #2</b> (limits for each dryer) Condition (15)	PM	---	6.02	0.020
	PM10	---	6.02	0.020
	NOx	0.25	12.5	---
	SO2	---	0.56	---
	CO	---	90.0	---
	VOC	---	41.8 *	---
<b>Press Vent</b> Condition (16)	PM	---	4.4	---
	PM10	---	4.4	---
	VOC	---	41.8 *	---

\* This limit applies to total combined emissions from both dryers and press vent

The “origin and authority” cited in the Part 70 license for most of these limits is Chapter 115 of the Department’s regulations. Many of the above limits were initially established in the plant’s 1993 air emission license, A-62-72-C-A, whereas others were established in Huber’s first air license issued August 25, 1982. Huber’s 1993 license along with subsequent amendments were intended to provide Huber with maximum flexibility to achieve maximum production while maintaining compliance with applicable limits.

Huber has requested to combine or “bubble” emissions from the boiler, two dryers, and press vent into one BACT limit. An emissions bubbling provision to Huber’s Part 70 license will provide the facility with greater flexibility to maximize utilization of its equipment, particularly its two dryers, while maintaining compliance with ambient air quality standards and with the overall emission limits from the affected equipment at the plant. The new pounds per hour limits would allow Huber to allocate, for example, emissions decreases from the boiler for use by the dryers and press vent provided overall emissions meet the new combined limits.

Huber will meet the following combined emission limits while firing wood from the boiler, two dryers, and press vent:

<b>Pollutant</b>	<b>Lb/hr</b>
PM	26.54
PM10	26.54
NOx	58.60
SO2	1.92
CO	230.0
VOC	51.80

The two dryers and boiler emit through a common, shared stack. The bubbling provisions will not result in emissions from the stack in excess of currently licensed emissions rates for the units currently emitting through that stack. Therefore, the Department’s previous conclusion that ambient air quality standards and increments will be maintained will not be affected by this license change. The press vent emissions are relatively minimal and well below the Department’s thresholds for ambient air quality analysis.

Compliance Assurance

Huber will demonstrate compliance with the proposed limits by conducting stack tests in 2007. Huber will test Boiler #1, Dryers #1 & #2, and the press vent for lb/hr of

PM, NO<sub>x</sub>, and VOC using test methods 5, 7, and 25 A, respectively. These stack tests will assure that Maine Ambient Air Quality Standards (MAAQS) are not being exceeded. Also, combined source dispersion modeling recently completed by the neighboring McCain Foods facility showed Huber to be in compliance with MAAQS and ambient increments.

### Conclusion

Huber is requesting that the existing license limits for criteria pollutants from the boiler, dryers and press vent be replaced with single combined limits. These combined (bubbled) limits will continue to meet BACT equivalent limits and provide the flexibility needed by the plant to meet its license limits while not increasing the plant's overall licensed emissions. This license modification does not allow Huber to make any physical changes to the equipment in question. Also, because the emissions from the units have already been licensed, there will be no net emissions increase from this modification.

Further, the bubbling provisions established per this license amendment will be in place only on a temporary basis until September 13, 2008. Huber will need to undertake changes at the Easton plant to achieve compliance with the Boiler MACT (40 CFR Part 63 Subpart DDDDD) and the Plywood and Composite Wood Products MACT (40 CFR Part 63 Subpart DDDD) by the compliance deadlines of September 13, 2008 and October 1, 2008, respectively. In conjunction with such a license change, Huber will commit to providing the DEP with an update of its plans for MACT compliance every three months. Therefore the Department approves these provisions as described in this amendment under the following Order section.

### *Propane Use*

Huber uses propane to start up the boiler and to start up the dryers. Because the dryers typically shutdown at least once per day, propane is used to start up the dryers on a regular basis. Because the boiler is rarely shutdown, the use of propane in the boiler is less frequent, typically only a couple times each year. In both cases, propane is not used to produce process heat. The purpose of the propane is not to produce steam in the boiler or to dry flakes in the dryers; it is used to warm the equipment during a startup sequence. By contrast, the fuels (wood, wood waste, No. 2 oil and other materials) used to produce process heat are listed in Conditions 14(A) and 15(A) of Huber's Part 70 Air License.

Huber had listed propane in its original application for the Part 70 Air License, but it was inadvertently left out of the license. This amendment addresses the fact that propane is used for start-up purposes in the boiler and dryers.

### ORDER

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

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

The Department hereby grants this Chapter 140 Significant License Modification, A-62-70-D-A, subject to the conditions found in Air Emission License A-62-70-A-I and subsequent amendments, in addition to the following conditions:

**(1) The following shall replace Conditions (14), (15), and (16) of Air Emissions License, A-62-70-A-I.**

**(14) Boiler 1**

- A. Huber may fire in Boiler #1; wood and wood waste from the plant's manufacturing operations (including scrap OSB, pallets, untreated lumber and sawdust), waste office paper and cardboard generated on-site, No. 2 fuel oil, propane, on-specification waste oil, grease, wax, particulate/water mixture from the wet ESP, and other non-hazardous wood product process residues. [MEDEP Chapter 115, BACT]
- B. Emissions from Boiler #1 shall not exceed the following limits while firing wood:

<b>Pollutant</b>	<b>lb/MMBtu</b>	<b>Origin and Authority</b>
PM	0.12	MEDEP Ch. 115, BACT
PM <sub>10</sub>	0.12	MEDEP Ch. 115, BACT
NO <sub>x</sub>	0.40	MEDEP Ch. 138, NO <sub>x</sub> RACT

Huber shall meet the following combined emission limits while firing wood from Boiler #1, the two dryers, and press vent:

<b>Pollutant</b>	<b>Lb/hr</b>	<b>Origin and Authority</b>
PM	26.5	MEDEP Ch. 115, BACT
PM10	26.5	MEDEP Ch. 115, BACT
NO <sub>x</sub>	58.6	MEDEP Ch. 115, BACT
SO <sub>2</sub>	1.9	MEDEP Ch. 115, BACT
CO	230	MEDEP Ch. 115, BACT
VOC	51.8	MEDEP Ch. 115, BACT

- C. For Boiler #1, Dryer 1 and Dryer 2 combined, Huber shall not exceed 14,085 gallons/day or 350,000 gallons/year on a 12-month rolling total of No. 2 fuel oil containing 0.5% sulfur by weight or less or an amount of No. 2 fuel oil with a sulfur quantity equivalent. [MEDEP Chapter 115, BACT]
- D. Compliance with the fuel oil limits shall be based on records of fuel use and fuel oil supplier receipts. Huber shall maintain a record of fuel oil used in the boiler and in the dryers on a daily and monthly basis and shall maintain records of fuel oil supplier receipts. [MEDEP Chapter 115, BACT]
- E. Huber shall maintain records of steam production from the boiler and calculations of wood fuel used in the boiler based on steam production on a monthly basis.
- F. Particulate matter (PM, PM<sub>10</sub>) emissions from Boiler #1 shall be controlled by the operation and maintenance of an electrostatic filter bed (EFB). Huber shall operate, at a minimum, the number of electrified filter beds that operated during the most recent demonstration of compliance with licensed particulate emissions limits. Huber is permitted to shut off the voltage to the EFB for an average 10 minutes every 8 hours of operation to allow for inspection of gravel flow. In addition, Huber is not required to operate the EFB during startup until proper operating temperature is achieved, or while burning only oil. Huber shall maintain records of EFB downtime and startup procedures. [MEDEP Chapter 115, BACT]

- G. Visible emissions from the stack for Boiler #1 and the dryers shall not exceed 20% for more than two (2) six (6)-minute block averages in a 3-hour period. [MEDEP Chapter 115, BACT]
- H. Huber shall monitor and record the voltage and amperage (periodic monitors) once every 12-hours (7:00 a.m. to 7:00 p.m. and 7:00 p.m. to 7:00 a.m.) on each EFB bed and ionizer. The requirement to record voltage and amperage does not apply during periods of periodic monitor malfunction. [MEDEP Chapter 140, BPT]
- I. Huber may utilize a temporary No. 2 oil-fired portable package boiler for up to 4 weeks (28 days) per calendar year when the Boiler #1 is unavailable to produce steam at design pressure due to maintenance or repairs. The package boiler shall not exceed 52.4 MMBtu/hr of No. 2 oil with a sulfur content not to exceed 0.5% by weight. Oil used in the package boiler shall be included in the facility-wide totals when determining compliance with Condition 14(C). Huber shall maintain records of the dates and times of operation and of oil used in the temporary package boiler in accordance with Condition 14 (D). The package boiler shall meet all applicable requirements, including any applicable requirements of 40 C.F.R. Parts 60 and 63. [MEDEP Chapter 140, BPT]

(15) **Dryers #1 and #2**

- A. Huber shall burn only wood, wood waste from the process, propane, and No. 2 fuel oil containing 0.5% sulfur by weight or less in the dryers.
- B. Huber shall maintain records of fuel oil used in the dryers based on total daily and monthly oil consumed in both dryers combined and percent sulfur by weight based on fuel oil supplier receipts. [MEDEP Chapter 140, BPT]
- C. Huber shall meet the combined emission limits from Boiler #1, the two dryers, and press vent listed in Condition 14(B).
- D. Visible emissions from the stack for Boiler #1 and the dryers shall not exceed 20% for more than two (2) six (6)-minute block averages in a 3-hour period. [MEDEP Chapter 115, BACT]
- E. Except as follows, Huber shall operate, at a minimum, the number of ESP chambers and number of fields per chamber in its wet ESPs that operated

during the most recent demonstration of compliance with the licensed particulate emission limit.

- (i) If the wet ESPs malfunction, Huber may continue to operate the dryers for up to two consecutive days in order to undertake repairs to the wet ESPs provided the quench chambers of the wet ESPs are operating. If repairs cannot be completed within two days, Huber may request an extension from the Bureau of Air Quality. Particulate emissions during these times when the wet ESP is not running shall not exceed the modeled emission rate of 20.6 lb/hr from the common stack on a 24-hour average basis.

[MEDEP Chapter 115, BACT]

F. Huber shall record the voltage and amperage (periodic monitors) once every 12-hours (7:00 a.m. to 7:00 p.m. and 7:00 p.m. to 7:00 a.m.) for each ESP. The requirement to record voltage and amperage does not apply during periods of downtime or repair of the ESP or during periodic monitor malfunction. [MEDEP Chapter 140, BPT]

G. Huber may bypass the secondary collectors. If it does, Huber must demonstrate compliance with PM combined emission limit in Condition 14 (B) by EPA Method 5 within 90 days. [MEDEP Chapter 140, BPT]

H. Huber will maintain a critical spare parts inventory on site as suggested by the manufacturer of the wet ESP. [MEDEP Chapter 115, BACT] [Enforceable by state-only]

(16) **Press Vent**

A. Huber shall meet the combined emission limits from Boiler #1, the two dryers, and press vent as listed in Condition 14(B).

B. Huber may use alternative glues, waxes, resins, release agents or other substances in the process upon notification to the Department. Huber may run trials with such new substances for a period up to 90 days. Huber shall provide notice to the DEP not later than 2 weeks after permanently switching to use of new substances. Upon request of the Department, Huber may be required to conduct stack tests to demonstrate compliance with this license

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after making the permanent switch to a new substance. [MEDEP Chapter 140, BPT]

**(2) The following conditions are new and were addressed in Huber's New Source Review Amendment, A-62-77-1-A, and shall be included in Air Emissions License, A-62-70-A-I.**

(34) In 2007, Huber shall stack test Boiler #1, the press vent, and the Dryers for lb/hr of PM, NOx, and VOC using 40 CFR Part 60 Appendix A test methods 5, 7, and 25 A, respectively. Testing of the Boilers, Dryers, and Press Vent shall be conducted within 48 hours and under similar operating conditions.

(35) Huber shall provide the DEP with an update of its plans for MACT compliance every three months, beginning with the first one three months after the issuance of this license.

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

**This amendment shall be reviewed for renewal concurrent with air emission license A-62-70-A-I.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 16, 2006

Date of application acceptance: October 16, 2006

Date filed with Board of Environmental Protection: \_\_\_\_\_

This order prepared by Edwin Cousins, Bureau of Air Quality