

**Lane Regional Air Protection Agency
 Standard Air Contaminant Discharge Permit**

Review Report

Oregon Cascade Building Materials Inc.

93495 Highway 99 South
 Junction City, Oregon 97448
<http://www.alpinelbr.com>

Source Information:

SIC	2491
NAICS	321114

Source Categories (LRAPA Title 37, Table 1)	B – 73
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	n
Emission credits	n
Special Conditions	n
Compliance schedule	n

Source test [date(s)]	n
COMS	n
CEMS	n
Ambient monitoring	n

Reporting Requirements

Annual report (due date)	Feb 15
NSPS Report (due date)	n
Monthly report (due dates)	n

Excess emissions report	y
Other reports	n

Air Programs

NSPS (list subparts)	n
NESHAP (list subparts)	A, QQQQQQ
CAM	n
Regional Haze (RH)	n
Synthetic Minor (SM)	n
Part 68 Risk Management	n
Title V	n
ACDP (SIP)	n
New Source Review (NSR)	n
Prevention of Significant Deterioration (PSD)	n
Acid Rain	n
Clean Air Mercury Rule (CAMR)	n
TACT	n

REVIEW REPORT

Oregon Cascade Building Materials Inc.

Permit No. 206130

1. Permittee Identification

Oregon Cascade Building Materials Inc. ("the facility") operates a wood preserving facility located at 93495 Highway 99 South in Junction City.

2. General Background Information

The facility currently is used for the re-manufacturing of wooden guard rail posts, equipment repair, and lumber storage. The facility is applying to conduct wood treatment using several water-based solutions: aqueous copper azole (CA-C), chromated copper arsenate (CCA), copper ammonium carbonate (ACQ) and borate-based solution. The wood products are treated under pressure in a closed cylindrical vessel or retort by forcing water-borne preservatives deep into the cells of the wood. The maximum operating schedule for the facility is 7,000 hours per year (20 hours per day, 7 days per week, and 50 weeks per year).

3. Reasons for Permit Action

The facility operates a process listed in Table 1, Part B, of LRAPA Title 37 and is, therefore, required to obtain a permit. The facility will emit a maximum of less than 10 tons/year of each criteria pollutant and qualifies for a Simple "Low" ACDP.

LUCS: The Land Use Compatibility Statement (LUCS) included with the facility application was approved by Lane County on October 28, 2014 submitted by Superior Forest Products for a "water quality NPDES" stormwater general permit. LRAPA also has a LUCS on file from a previous permit application for the facility location that was approved by Lane County on July 11, 2017. The more recent LUCS was submitted by Hexion Inc. for an "Air Quality Notice of Construction". LRAPA considers the LUCS requirement fulfilled by the submittal of both approved statements.

4. Emission Unit Description

The emission units regulated by the permit are the following:

Emission Unit	EU ID
Three (3) Retorts – waterborne preserving, electrically heated	Retorts
Wood processing – Cutting, incising, staining	NA
Drip Pad and Product Storage	NA
Categorically Insignificant Activities Including: Multiple Storage Tanks not subject to a New Source Performance Standard (NSPS)	CIA

5. Process Description

The basic process at the facility is as follows. The facility has cut, virgin (green/undried) wood, as well as wood kiln-dried by others, transported to the site. Wood received green is treated green. The facility does not perform any kiln drying of wood onsite. Prior to treatment, the wood is taken to an incisor. The incisor mechanically cuts slits into the wood. If the product is stained, it will be placed in a storage area until it is transferred to a retort for treatment. If the product is not stained, it is transferred directly to a retort for treatment.

The water-based preservatives used at the facility are:

- aqueous copper azole (CA-C);
- chromated copper arsenate (CCA);
- ammonia copper carbonate (ACQ); and
- borate-based solution

The wood is then pushed into the retort. The retort is filled with the preservative and the vessel is then pressurized. Once the wood has been treated, the pressure is relieved, and the liquid is pumped out of the retort into a holding tank. The retort is then opened and the “charge” is pulled out to dry on the drip pad. The charges are required to stay on the drip pads until the treatment engineer certifies that dripping has ceased. Once the charge is determined to stop dripping, it is moved off of the pad and put into the storage yard until shipped.

6. Enforcement History

This is a new facility and has not received any enforcement actions.

7. Performance Test Results

The facility is not required to conduct testing.

8. Plant Site Emission Limits (PSELs)

The following annual (rolling 12-month) PSELs are detailed in the permit (all values are in tons per year).

Annual (12-Month Rolling) PSELs
(tons/year)

Source	VOC
Plant Site Total	39

In accordance with LRAPA title 42 the Plant Site Emission Limits (PSELs) in the permit are set at the Generic PSEL level for all pollutants emitted above the de minimis level. The attachment to this review report contains the calculations of estimated emissions based upon actual throughputs.

The facility is required to record monthly wood preservation throughput by treatment type to determine compliance with the 12-month rolling PSELs.

9. Baseline Emission Rate (BER), Netting Basis and Significant Emission Rate (SER)

The facility did not operate in the baseline period for criteria pollutants or for greenhouse gases (GHGs) and does not have a baseline emission rate.

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase over netting basis (tons/yr)
PM	NA	NA	0	NA	NA	NA
PM ₁₀	NA	NA	0	NA	NA	NA
PM _{2.5}	NA	NA	0	NA	NA	NA
CO	NA	NA	0	NA	NA	NA
NO _x	NA	NA	0	NA	NA	NA
SO ₂	NA	NA	0	NA	NA	NA
VOC	NA	NA	0	NA	39	39
GHG	NA	NA	0	NA	NA	NA

VOCs from the wood treating process are estimated to be a maximum of approximately 2 tons/year.

10. Other Emission Limitations

The permit includes general visible emissions limitations for the facility. The permit also includes general grain-loading (particulate matter) limitations for the facility. Standards and rules pertaining to fugitive emission sources, including EU-Woodworking, are specified in the permit.

11. Hazardous Air Pollutants (HAPs)

The projected maximum potential HAP emissions from the facility are shown in the following table:

Pollutant	Pounds/year
Chromium	0.008
Total HAPs	42.7

12. National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The HAP estimations show that the facility emits less than 10 tons per year of any single HAP and less than 25 tons per year for any combination of HAPs and is, therefore, a minor or "Area" source of HAPs.

The facility is subject to the area source wood-treatment NESHAP (Subpart QQQQQQ – National Emission Standards for Hazardous Air Pollutants for Wood Preserving Area Sources) and the requirements from the NESHAP are contained in the permit.

13. Emissions of Ammonia

Ammonia is not a HAP, nor is it a directly-regulated air or criteria pollutant. The permit does not contain any limits on emissions of ammonia, but the facility is required to record and annually report all wood preserving chemical usage by amount and type, including ammonia.

14. Typically Achievable Control Technology (TACT)

LRAPA 32-008 requires an existing emission unit at a facility to meet TACT if the emissions unit has emissions of criteria pollutants greater than 10 tons per year of any gaseous pollutant or five (5) tons per year of particulate, and the emissions unit is not subject to the emissions standards under LRAPA Title 32, Title 33, Title 39, or Title 46 for the pollutants emitted, and the facility is required to have a permit. There are not emission units at the facility that are required to meet TACT.

15. New Source Review (NSR) and Prevention of Significant Deterioration (PSD)

Because the proposed PSEs for all regulated pollutants are below the Significant Emission Rates (SERs) in LRAPA Title 38, the facility is not subject to LRAPA's New Source Review (NSR) requirements for PM₁₀, nor the Prevention of Significant Deterioration (PSD) requirements for SO_x, NO_x, CO, and VOC.

16. New Source Performance Standards (NSPSs)

There are no sources at the facility subject to any NSPS.

17. Recordkeeping

The facility is required to record and maintain a record of the following information for a period of five (5) years:

Item	Parameter	Minimum Recording Frequency
a.	Amount of wood treated by treatment solution type (cubic feet)	Monthly
b.	Name, type and quantity (gallons or pounds) of all chemicals used in the wood treatment process	Monthly

18. Reporting Requirements

The facility is required to record wood treating on a monthly basis and submit an annual report by February 15th of each year.

19. Public Notice

The draft permit was on public notice from November 7, 2018 to December 6, 2018. No public hearing was required or held. Written comments were submitted by one (1) individual during the comment period and are summarized in item 20 below.

20. Public Comment and Response

Comment: One person commented that they had the experience of previously been exposed to chemicals that were considered "minimally harmful" and were currently suffering significant chronic and debilitating symptoms. Based on that experience, the commenter suggested LRAPA place

increased operational restrictions on the facility. The commenter noted that organophosphates, CCA, chromium, etc. are very harmful to humans, animals and the environment.

Additionally, the commenter proposed as a potential solution that the facility use plastic guard rail posts instead of wood in their production process. The benefits of such a change would both decrease timber usage and help reduce plastic pollution.

Lastly the commenter emphasized that LRAPA should reduce the public's exposure to toxic air contaminants and not approve the proposed permit. The commenter noted that plants in Canada operate economically with much more stringent filters and controls, and that Oregon and the United States are able to do the same.

LRAPA Response: LRAPA appreciates the points raised in the comment and thanks the commenter for their interest in the draft permit.

With this permit action, LRAPA is placing additional operational restrictions on the facility by way of federal work practice standards to minimize emissions (see Conditions 8, 9, 10 and 11 in the permit). Also, in January of 2018 LRAPA adopted rule changes that removed permitting exemptions for facilities that perform wood preservation using waterborne chemicals. Had the LRAPA Board of Directors not adopted those changes suggested by LRAPA staff, this facility would not have been required to obtain an Air Contaminant Discharge Permit (air permit) from LRAPA since all of their preservation chemicals are waterborne. Without the rule change, the facility may have voluntarily complied with the newly imposed work practice requirements, but now the LRAPA-issued permit requires the facility to comply be subject to additional oversight from the Agency.

The use of alternative process materials is not something LRAPA has the authority to require, but your comment about substituting plastic for wood materials is noted for the permit record.

For the last comment about reducing exposure and requiring more stringent filters and controls, LRAPA notes that most or all of the emissions are what are called "fugitive emissions", which are those emissions that "could not reasonably pass through a stack...". As such, they are not able to be vented to a control device such as a carbon filtration system. Given the fugitive nature of the emissions, work practices to reduce chemical usage and minimize public exposure is considered an appropriate control technology that is available.

Max 12/10/18

Emission Factors and Emission Details:

Emission Device	Throughput (1000 cuft/yr)	Pollutant	Emission Factor (lb/1000 cu ft)	EF Reference	Annual Emissions	Units
Retort 1	957	VOC	0.74	DEQ AQGP-024	0.354	tons/year
		Chromium	0.0000019	AP-42 Table 10.8.-2	0.002	pounds/year
		Total HAP	0.0097	DEQ AQGP-024	9.283	pounds/year
Retort 3	1723	VOC	0.74	DEQ AQGP-024	0.638	tons/year
		Chromium	0.0000019	AP-42 Table 10.8.-2	0.003	pounds/year
		Total HAP	0.0097	DEQ AQGP-024	16.713	pounds/year
Retort 3	1723	VOC	0.74	DEQ AQGP-024	0.638	tons/year
		Chromium	0.0000019	AP-42 Table 10.8.-2	0.003	pounds/year
		Total HAP	0.0097	DEQ AQGP-024	16.713	pounds/year
					Total VOC	1.63 tons/year
					Total Chromium	0.0084 pounds/year
					Total HAPs	42.7 pounds/year

Emission Factors:

The VOC and total HAP factors are from the DEQ General ACDP AQGP-024 for wood preservers, derived from AP-42 Table 10.8.-1 for creosote treating
 Use the creosote treating VOC emission factor due to any other available emission factor for water borne solution treating

The chromium factor is from AP-42 Table 10.8.-2 for chromated copper arsenate (CCA - conservatively assume all treatment is CCA)