Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit

Review Report

Oregon Cascade Building Materials Inc. **Permit No. 206130**
93495 Highway 99 South
Junction City, Oregon 97448
http://www.alpinelbr.com

Source Information:

Primary SIC	2491 – Wood Preserving
Secondary SIC	--
Primary NAICS	321114 – Wood Preservation
Secondary NAICS	--

Source Categories (LRAPA Title 37, Table 1)	B.73 – Wood preserving (including waterborne with actual or projected emissions of greater than 1 ton/year VOC and/or HAP
Public Notice Category	III

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
GHG 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)	QQQQQQ
CAM	N
Regional Haze (RH)	N
TACT	N
Synthetic Minor (SM)	N
SM-80	N
Title V	N
40 Part 68 Risk Management	N
Major FHAP Source	N
Federal Major Source	N
Type A State New Source Review	N
Type B State New Source Review	N
Prevention of Significant Deterioration (PSD)	N
Nonattainment New Source Review	N

Permittee Identification

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

General Background Information

2. The facility currently is used for the re-manufacturing of wooden guard rail posts, equipment repair, and lumber storage. The facility may conduct wood treatment using several water-based solutions: aqueous copper azole (CA-C), chromated copper arsenate (CCA), copper ammonium carbonate (ACQ) and a 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.

Reasons for Permit Action and Fee Basis

3. 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 renewal under LRAPA 37-0064(2)(a).

4. LUCS: LRAPA has a Land Use Compatibility Statement (LUCS) for the facility location that was approved by Lane County on July 11, 2017.

Attainment Status

5. The facility is located outside of the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated attainment/unclassified for $PM_{2.5}$, ozone (VOC), NO_2, SO_2, Pb, CO and PM_{10}. The facility is located within 100 kilometers of two (2) Class I air quality protection areas: Diamond Peak Wilderness and Three Sisters Wilderness area.

Emission Unit Description

6. The emission units regulated by the permit are the following:

Emission Unit ID	Description	Pollution Control Device (PCD ID)	Installed / Last Modified
Significant Emission Units			
EU-1	One (1) Retorts – waterborne preserving, electrically heated	None	Retort 1 – 2018
EU-2	Wood processing – Cutting, incising, staining	None	2018
EU-3	Drip Pad and Product Storage	None	2018
EU-4	Unpaved Roads	None	2018
EU-CIA	Categorically Insignificant Activities Including: • Multiple Storage Tanks	None	2018

Process Description

7. 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.

8. 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

9. 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.

10. The facility's initial application in 2018 included two (2) additional retorts for a total of three (3) retorts. The additional two (2) retorts were removed from the permit since they have not been installed.

Plant Site Emission Limits (PSELs)

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

Annual PSELs
(tons/year)

Source	VOC
Totals	1.6

In accordance with LRAPA 42-0041(2), the PSEL for all pollutants emitted above de minimis are set equal to the sources potential-to-emit (PTE) for that pollutant. The previous VOC PSEL for this facility was set at the Generic PSEL. No PSELs are set for PM, PM_{10}, $PM_{2.5}$, CO, NOx, SO_2, and GHG in accordance with LRAPA 42-0020(3)(a) because these pollutants are emitted at no more than the de minimis as defined in LRAPA title 12.

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

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

12. 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	0	0	NA	NA	NA
PM_{10}	NA	0	0	NA	NA	NA
$PM_{2.5}$	NA	0	0	NA	NA	NA
CO	NA	0	0	NA	NA	NA
NO_x	NA	0	0	NA	NA	NA
SO_2	NA	0	0	NA	NA	NA
VOC	NA	0	0	39	1.6	1.6
GHG	NA	0	0	NA	NA	NA

Type A and Type B State NSR

13. For all NSR regulated pollutants the proposed modification will not have emissions per regulated pollutant equal to or greater than the SER over the netting basis that would require Type A or B State NSR.

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

14. This source is located in an area that is designated attainment or unclassified for all regulated pollutants. The proposed PSELs are less than the federal major source threshold for non-listed sources of 250 TPY per regulated pollutant and are not subject to Major NSR.

Nuisance, Deposition, and Fallout Emission Limitations

15. Under LRAPA 49-010(1), the facility must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

16. Under LRAPA 32-055, the facility must not cause or permit the emission of particulate matter which is larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

17. Under LRAPA 32-090(1), the facility must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property; such determination is to be made by LRAPA. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

General Emission Limitations

18. Under LRAPA 48-015(1), the facility must not cause, suffer, allow or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Compliance is demonstrated through a fugitive emissions survey performed at least once a month and taking the reasonable precautions listed under LRAPA 48-015(1).

19. The emission units at this facility are subject to the visible emission limitations under LRAPA 32-010(3). These emission units must not have visible emissions equal to or greater than 20% opacity as a six (6) minute block average. Compliance is demonstrated through a visible emissions survey performed at least once a month.

20. The emission units at the facility, other than combustion units, are subject to particulate matter emission limitations under LRAPA 32-015(c). For sources installed, constructed or modified after April 16, 2015, 0.10 grains per dry standard cubic foot. Compliance is demonstrated through a visible emissions survey performed at least once a month.

21. LRAPA 32-008(2) requires new or modified emission units to meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR in title 38, Type A State NSR in LRAPA title 38, an applicable Standard of Performance for New Stationary Sources in title 46, or any other standard applicable only to new or modified sources in title 32, title 33, or title 39 for the regulated pollutant emitted; the source is required to have a permit; if new, the emission unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emission unit would have an increase in emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; and LRAPA determines that the proposed air pollution control devices and emission reduction processes do not represent TACT.

    21.a. Each retort in Emission Unit EU-1 does not have potential gaseous pollutant emissions that are equal to or greater than one (1) ton per year for VOCs and is therefore not required to meet TACT. However, while LRAPA has not performed a formal TACT determination for VOCs, LRAPA has determined that controls are not typically used for these emission units at the calculated potential emission rates. Current operations likely meet TACT.

New Source Performance Standards (NSPSs)

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

23. The FHAP 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.

24. Emission Unit EU-1 is subject to 40 CFR 63 subpart QQQQQQ (6Q) – National Emission Standards for Wood Preserving Area Sources because the facility is a wood preserving operation as defined under 40 CFR 63.11433 that is an area source of hazardous air pollutant emissions. The facility uses aqueous copper azole (CA-C), chromated copper arsenate (CCA), ammonia copper carbonate (ACQ), and a borate-based solution as wood preservatives. Because CCA contains arsenic, the facility is subject to the standards in the 6Q NESHAP as per 40 CFR 63.11430(a).

25. The 40 CFR 63 subpart 6Q requirements that are applicable to Emission Unit EU-1 are identified in the following table:

40 CFR 63 subpart 6Q Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11428	Applicability	Yes	None.	NA
63.11429	Compliance Dates	Yes	None.	NA
63.11430	Standards	Yes	None.	20 - 23
63.11432	General Provisions	Yes	None.	NA
63.11433	Definitions	Yes	None.	NA
63.11434	Implement and enforcement	Yes	None.	NA

Federal Hazardous Air Pollutants/Toxic Air Contaminants

26. Potential annual federal hazardous air pollutant emissions (FHAP) are based on the potential to emit of the facility operating under permit limitations. Chromium has the highest single FHAP emissions at 0.002 pounds per year. The potential total FHAP emissions are 42.7 pounds per year. A major source of FHAPs is defined as having potential FHAP emissions of at least 10 tons per year of any single HAP and 25 tons per year of the aggregate of all FHAPs. This facility does not have potential FHAP emissions exceeding these thresholds and is considered a minor or area source of FHAPs.

27. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and, therefore, is not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants (TAC) that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 TACs. The FHAPs and TACs listed below are based upon safety data sheets and standard emission factors for the types of emission units at this facility. After the source is notified by LRAPA, they must update

their inventory and perform a risk assessment to see if they must reduce risk from their TACs. Until then, this source will be required to report TAC emissions triennially.

28. The projected maximum potential FHAP emissions from the facility are shown in the following table:

Pollutant	Pounds/year
Chromium	0.008
Total FHAPs	42.7

Toxic Release Inventory

29. The Toxics Release Inventory (TRI) is a federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI Program. In general, chemicals covered by the TRI Program are those that cause:

- Cancer or other chronic human health effects;
- Significant adverse acute human health effects; or
- Significant adverse environmental effects.

There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority. LRAPA does not guarantee the accuracy of any information copied from EPA's TRI website.

In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. For calendar year 2022, this facility did not report any chemicals to the air.

Enforcement History

30. This facility has not received any enforcement actions.

Performance Test Results

31. The facility is not required to conduct performance or emission factor verification testing. LRAPA is not aware of any performance testing conducted at this facility.

Recordkeeping Requirements

32. The facility must keep and maintain records for a period of at least five (5) years from the date of entry of the following information:

Activity	Units	Minimum Recording Frequency
PSEL Recordkeeping		
Production of treated wood by chemical type.	Cubic feet	Monthly and 12 month rolling

Activity	Units	Minimum Recording Frequency
Name, type and quantity used for all chemicals used in the wood treatment process.	NA	Annually
General Recordkeeping		
Log of nuisance, deposition and fallout complaints.	NA	Upon receipt of complaint
Fugitive Emission Survey.	NA	Monthly
Visible Emission Survey.	NA	Monthly
Upset Log of all planned and unplanned excess emissions, as required by Condition G16.	NA	Per occurence
40 CFR 63 Subpart 6Q Recordkeeping		
Certification that the facility complies with all applicable requirements.	NA	Each wood preservative used

Reporting Requirements

33. The facility must submit to LRAPA the following reports by no later than the dates indicated in the table below:

Report	Reporting Period	Due Date
The upset log information required by Condition G14 of the permit.	Annual	February 15
PSEL pollutant emissions as calculated according to Conditions 5 and 6 of the permit, including supporting calculations.	Annual	February 15
Certification of compliance with the 40 CFR 63 Subpart 6Q NESHAP requirements in Conditions 20 – 23 in the permit.	Annual	February 15

34. The permittee is not subject to greenhouse gas reporting under OAR 340 Division 215 because actual greenhouse gas emissions are less than 2,500 metric tons (2,756 short tons) of CO2 equivalents per year. If the source ever emits more than this amount, they will be required to report greenhouse gas emissions.

Public Notice

35. Pursuant to LRAPA 37-0065(5)(a), issuance of a renewed Simple Air Contaminant Discharge Permit requires public notice in accordance with LRAPA 31-0030(3)(c), which requires LRAPA to provide notice of the proposed permit action and a minimum of 35 days for interested persons to submit written comments.

    The proposed permit was on public notice from September 11, 2024 to October 17, 2024. Written comments were received during this public comment period. No public hearing was requested by at least ten (10) persons or an organization representing at least ten (10) persons. After the comment period, LRAPA reviewed the comments but did not make any changes to the permit.

    Public Comments Summary and LRAPA Responses

    [All public comments that were received for this action are a public record and are retained with the public permit review files. Public comments that are not related to the review report or proposed

permit, such as those comments that are statements of fact or express an opinion, are not presented in this document, and do not require a response from LRAPA.]

Comment 1: The commenter asked if the cumulative air pollutants from all industries in a given area are considered when issuing the permit, and if so, how are they considered. If not, the commenter asks if cumulative air pollutants can be considered.

Response 1: Cumulative air pollutants from all industries near the facility were not considered as part of the renewal for this permit.

For criteria pollutants, sources may be required to conduct a competing source analysis to show that their emissions, when considering emissions from other permitted sources' nearby, do not cause or contribute to an exceedance of any National Ambient Air Quality Standard (NAAQS). This facility does not have emission levels of any criteria pollutant that requires a competing source analysis as their emissions are well below any significant levels that would trigger this analysis.

Additionally, for air toxics regulated under Cleaner Air Oregon (CAO), LRAPA may not consider cumulative impacts since that aspect was limited by the Oregon legislature though SB 1541 in 2018 so that Oregon Department of Environmental Quality (DEQ) may only consider cumulative toxics impacts in one area of the state that meets certain requirements. This facility is in an area that is not eligible for consideration to be included in the Cumulative Health Risk Pilot (CHRP) to be analyzed by DEQ. More information on the CHRP project is available on DEQ's website here:

https://www.oregon.gov/deq/aq/air-toxics/pages/chrp.aspx

Public Hearing Comment Receipt Log

Written comments were received from: Julie Ulibarri, jgcrystal77@gmail.com

MH/aa
10/21/2024

Emission Factors and Emission Details:

Wood Preserving Emissions:

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
TOTAL	957	1000 Cuft/yr		Total VOC	0.35	tons/year
				Total Chromium	0.0018	pounds/year
				Total HAPs	9.3	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 treatement is CCA)						

Unpaved Road Emissions:

Unpaved Roads: EU - UPR (Current)		
Source Used		EPA AP-42. Chapter 13.2.2, Eq. 1a
Equation		E = k(s/12)^a(W/3)^b
Where:		a = 0.7 for PM and 0.9 for PM_{10} &$PM_{2.5}$ and b = 0.45. Both 'a' and 'b' are empirical constants
Variable Descriptions and Calculations		
PM		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	4.9	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.7	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent silt content)
W =	15.00	Mean vehicle weight, tons unloaded (LRAPA Assumption)
E =	7.88	lb/VMT (PM emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**4.64**	EF for PM adjusted for rain days (AP-42, 13.2.2, Eq (2))
PM10		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	1.5	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.9	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent silt content)
W =	15	Mean vehicle weight, tons unloaded (LRAPA Assumption)
E =	2.24	lb/VMT (PM_{10} emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**1.32**	EF for PM_{10} adjusted for rain days (AP-42, 13.2.2, Eq (2))
PM2.5		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	0.15	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.9	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent silt content)
W =	15	Mean vehicle weight, tons unloaded (LRAPA Assumption)
E =	0.22	lb/VMT ($PM_{2.5}$ emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**0.132**	EF for $PM_{2.5}$ adjusted for rain days (AP-42, 13.2.2, Eq (2))
Control %	**75**	Road watering efficiency (%)
PM EF	**1.1598**	Emission factors (lb/VMT) with wet suppression control.
PM_{10} EF	**0.3306**	
$PM_{2.5}$ EF	**0.0331**	
Annual Vehicle Miles Traveled		
VMT	**1,159**	Total amount of vehicle miles traveled per year
Total Annual Particulate Matter Emissions, tons ((EF x VMT)/2000 lb/ton		
PM	**0.67**	**tons per year**
PM10	**0.19**	**tons per year**
PM2.5	**0.02**	**tons per year**
Silt Content of road surface material, %, AP-42, Table 13.2.2.1: Sand and gravel processing - Haul roads to/from pit (percent of mean)		

Lumber Trucks and Vehicle Miles Travel Information		
Mile traveled one way	0.3	miles (at 1500 ft), LRAPA estimate using satellite imagery
Miles traveled round trip	0.6	miles
Trips per day each truck makes	4	trips/day
Number of trucks	2	Trucks
Total amount of trips made per day	8	Total number of vehicle trips/day
Number of miles driven per day	4.545455	miles/day
Number of miles driven per week (5 days/wk)	22.72727	Miles/week
Total miles per year (51 weeks)	**1,159**	Miles/year
Average weight of a lumber truck	**15.0**	tons (LRAPA assumption).

Unpaved road emissions were estimated by LRAPA and approved by the facility.