Lane Regional Air Protection Agency
Standard Air Contaminant Discharge Permit

Review Report

Lanz Cabinet Shop, Inc. **Permit No. 204937**
3025 West 7th Place
Eugene, Oregon 97402
Website: https://lanzcabinets.com/

Source Information:

Primary SIC	2434 – Wood kitchen cabinets
Secondary SIC	--
Primary NAICS	337110 – Wood kitchen cabinet and countertop manufacturing
Secondary NAICS	--
Public Notice Category	III
Source Category (LRAPA 37-8010 Table 1)	B: 45. Millwork manufacturing including kitchen cabinets, 25,000 or more board fee/maximum 8 hour input.

Source Category (LRAPA 37-8010 Table 1)	B:69. Surface coating operations: coating operations whose actual or expected usage of coating material is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coating. C: 3. All sources electing to maintain the source's netting basis C: 4. All sources that request a PSEL equal to or greater than the SER for a regulated pollutant

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	N
Emission credits	N
Compliance schedule	N
Source test [date(s)]	N

COMS	N
CEMS	N
CPMS	N
Ambient monitoring	N

Reporting Requirements

Annual report (due date)	Feb 15
Semi-Annual Report (due date)	N
Greenhouse Gas Report (due date)	N

Quarterly report (due dates)	N
Monthly report (due dates)	N
Excess emissions report	Y
Other reports	N

Air Programs

NSPS (list subparts)	N
NESHAP (list subparts)	N
CAM	N
Regional Haze (RH)	N
TACT	N
40 CFR part 68 Risk Management	N
Synthetic Minor (SM)	N
SM-80	N

Title V	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 (NNSR)	N

Permittee Identification

1. Lanz Cabinet Shop, Inc. ('Lanz' or 'facility') owns and operates a cabinet manufacturing facility located at 3025 West 7th Place, Eugene Oregon.

General Background

2. Lanz began operation in May 1998. Previously, the facility operated a cabinet manufacturing operation located at 3815 West 11th Avenue, Eugene, Oregon that was established in 1960. The only equipment transferred from the old facility to the West 7th Place facility was the wood-working equipment. All coating equipment and baghouses were installed in 1998 or after.

   The facility's operation consists of two (2) continuous coating lines: a stain coating line and a UV coating line which have a total of three (3) 0.081 MMBtu/hour natural gas-fired ovens. There is one (1) spray booth that adhesive is applied. The continuous coating lines and the spray booth use filters to control for particulate matter (PM).

Reason for Permit Action and Fee Basis

3. This permit action is for the reclassification of the facility from major source under a Title V Operating Permit to a Standard ACDP.

   In 1998 and again in 2002, Lanz wanted to obtain the facility's Title V permit to allow for the potential for increased production in response to favorable markets (Review Reports 1998 and 2002). The facility calculated their emissions with a potential growth factor. This put the tons per year of hazardous air pollutant(s) (HAP) (single and combined) over the 10 tons/year (for single) and 25 tons/year (combined) making the facility subject to 40 CFR part 63 subpart JJ. The one HAP that caused the thresholds of both the single and combined to be exceeded was Methyl Ethyl Ketone (MEK). MEK was delisted from the section 112(b) list of Hazardous Air Pollutants in 2005. The "EPA allowed source[s] to look back to the first substantive compliance date to demonstrate that the potential to emit HAPs on that date would have been less than the major source threshold, without counting emissions of the delisted pollutant" as a method to reestablish the facility as an area source of HAPs. (*U.S. Environmental Protection Agency Applicability Determination Index, Control Number: M090018*, August 26, 2008). Utilizing this document, the facility would not have been over the single or combined HAP thresholds and would not have been required to obtain and/or maintain a Title V Operating Permit.

   The actual annual emissions for HAPs have demonstrated that the facility has never been over the HAP thresholds of 10 tons/year (single) or 25 tons/year (combined) since 1998, when the facility first became subject to Subpart JJ. With the facility's updated coating technology and the reformulated paints, topcoats, sealer, thinners, etc., the emissions have been reduced though production has increased.

Attainment Status

4. The facility is located in an area that has been designated as attainment or unclassified for all criteria pollutants. Lanz is inside the Eugene-Springfield Urban Growth Boundary (UGB) as defined in LRAPA 39-0010 which designates the Eugene-Springfield CO and PM_{10} maintenance areas. The facility is also located inside the Eugene-Springfield UGB as described in the current Eugene-Springfield Metropolitan Area General Plan, as amended.

Permit History

5. LRAPA has reviewed and issued the following permitting actions to this facility:

Date(s) Approved/Valid	Permit Action Type	Description
10/26/1999	ACDP	Initial
05/03/2002	TV Operating Permit	Initial
10/01/2002	Administrative Amendment	Change date of VOC emissions calculations are to be performed
04/23/2010	Title V	Renewal
10/27/2011	Section 502(b)(10) Change	Conversion of warehouse to coating and production area for the installation of a spray booth for hand application of coatings, with the parameters of 40 CFR part 63 subpart JJ.
10/24/2013	Section 502(b)(10) Change	Installation of a spray booth for hand application of coatings, within the parameters of 40 CFR part 63 subpart JJ.
01/02/2014	Section 502(b)(10) Change	Installation of a spray booth for hand application of coatings, an edge bander and panel saw.
10/24/2016	Addendum #1	Revised the name, title, and phone number of the 'Responsible Official' and 'Facility Contact Person'
07/29/2019	Title V	Renewal
11/02/2023	Addendum #1	Replacement of Stain and UV lines, updated control devices for the Sawdust Handling System, updated the "Responsible Official" title.
Upon Issuance	Standard ACDP	Reclass facility to a Standard ACDP

Emission Unit Descriptions

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

Emission Unit Description	EU ID	Pollution Control Device Description	PCP ID
Significant Emission Units:			
Continuous Coating Lines: • UV Coater and Stain Line with natural gas-fired 0.081 MMBtu/hr ovens • Spray Booth	SC	Paint Filters	NA
Aggregate Insignificant Activities:			
Sawdust Handling System:	AIA	Building 1: Baghouses 1 & 4 with dust collection extraction point (truck dump hopper) Building 2: Baghouse 2 with dust collection extraction point and Baghouse 5 (dust collected BH-1) Building 3: Baghouses 3 & 6 with dust collection extraction point (truck dump hopper)	BH-1 BH-2 BH-3 BH-4 BH-5 BH-6

Emission Unit Description	EU ID	Pollution Control Device Description	PCP ID
1.93 MMBtu/hr of Natural Gas-Fired Combustion Units	CIA	NA	NA

General Emission Limits and Standards

7. All PM emitting equipment such as baghouses and fuel burning equipment are limited to 20 percent opacity. For equipment installed, constructed or modified prior to April 16, 2015 are limited to 0.14 grains per dry standard cubic foot (dscf) and equipment installed, constructed or modified after April 16, 2015 are limited to 0.10 dscf. The equipment is subject to the non-fugitive particulate matter emission limits in Section 8010 of LRAPA title 32. Visual emissions surveys of the facility's equipment must be performed at least once each quarter.

Plant Site Emission Limits (PSELs)

8. Provided below is a summary of the baseline emission rate, netting basis, plant site emission limits, and potential-to-emit (PTE):

Pollutant	Baseline Emission Rate (tpy)	Netting Basis		Plant Site Emission Limits (PSEL)		PTE (tpy)
		Previous (tpy)	Proposed (tpy)	Previous PSEL (tpy)	Proposed PSEL (tpy)	
PM	NA	0.0	0.0	24	0.0	0.46
PM_{10}	NA	0.0	0.0	14	0.0	0.46
$PM_{2.5}$	NA	0.0	0.0	9.0	0.0	0.46
CO	NA	0.0	0.0	0.0	0.0	0.78
NO_X	NA	0.0	0.0	0.0	0.0	0.93
SO_2	NA	0.0	0.0	0.0	0.0	0.02
VOC	NA	70	70	70	62	62.07
GHG	1,091	1,091	1,091	74,000	0.0	1,115

9. The facility has no baseline emission rates (BER) for PM, PM_{10}, CO, NO_X, SO_2, and VOC because the facility was not in operation during the 1978 baseline year. A baseline emission rate was not established for $PM_{2.5}$ in accordance with LRAPA 42-0048(3). The facility's baseline for GHG was based on 2006 data in accordance with LRAPA 42-0048(1)(b) and (4).

10. The netting basis for VOC was established according to 42-0046(3)(e)(B). The facility was subject to New Source Review (NSR) under LRAPA title 38. The netting basis for GHG was established according to 42-0046(1)(b). The netting basis for all pollutants, other than VOC and GHG, is set at zero (0) because the facility was constructed after the 1978 baseline year.

11. PSELs were established based upon the following:

    11.a. No PSELs were established for PM, PM_{10}, $PM_{2.5}$, CO, NO_X, and GHG because these pollutants will be emitted from the facility at no more than the de minimis emission levels list in LRAPA title 12.

    11.b. The VOC PSEL was set according to LRAPA 42-0041(2).

    11.c. The PSEL is a federally enforceable limit on the potential to emit.

Significant Emission Rate (SER)

12. The PSEL increase over the netting basis is less than the Significant Emission Rate (SER) as defined in LRAPA title 12 for all pollutants as shown below.

Pollutant	Proposed PSEL (tpy)	PSEL Increase Over Netting Basis (tpy)	PSEL Increase Due to Utilizing Existing Baseline Period Capacity (tpy)	PSEL Increase Due to Modification (tpy)	SER (tpy)
PM	NA	NA	NA	NA	25
PM_{10}	NA	NA	NA	NA	15
$PM_{2.5}$	NA	NA	NA	NA	10
CO	NA	NA	NA	NA	100
NO_X	NA	NA	NA	NA	40
SO_2	NA	NA	NA	NA	40
VOC	62	0.0	0.0	0.0	40
GHG	NA	NA	NA	NA	75,000

Best Available Control Technology (BACT) Removal Discussion

13. The BACT determination for the VOC limits was performed for the May 2, 2002 initial Title V Operating Permit for the UV Continuous Coating Line. The initial UV Continuous Coating Line was replaced in November 2024 with a new UV Line therefore, the BACT determination no longer applies and was removed from the permit.

Type A and Type B State NSR

14. At the time of the initial application, the facility's regulated pollutants were evaluated according to title 38. Because there will not be an increase to the PSEL during this action, no determination was required.

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

15. This facility is located in an area that is designated attainment or unclassified for all regulated pollutants other than CO and PM_{10}. For pollutants other than CO and PM_{10}, the proposed PSELs are less than the federal major source threshold for non-listed sources of 250 tons per year per regulated pollutant and are not subject to Major NSR. For CO and PM_{10}, the source is located in a maintenance area. There has been no changes to the CO or PM_{10} PSELs, therefore CO and PM_{10} remain below the 100 tons per year threshold that determines the applicability of Major NSR in a maintenance area.

Federal Hazardous Air Pollutants (FHAP)/Toxic Air Contaminants (TAC)

16. The potential annual FHAP emissions for Lanz are based on a ratioed material balance for coating operations and standard emission factors for natural gas combustion. Potential FHAP emissions are projected to be 0.49 tons per year, with toluene having the highest single FHAP emissions at 0.23 tons 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.

17. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. The facility has not been notified by LRAPA and is therefore 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 that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 toxic air contaminants. The FHAPs and toxic air contaminants listed below are based upon source testing and/or standard emission factors for the types of emission units at this facility. After the source is notified by LRAPA, Lanz must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

18. The table below represents the potential emissions of FHAPs/TACs from facility assuming operation at full capacity.

CAS Number or DEQ ID*	Pollutant	PTE (tpy)	FHAP	CAO TAC
95-63-6	1,2,4-Trimethylbenzene	9.89E-03	No	Yes
78-93-3	2-Butanone (methyl ethyl ketone)	4.77E-01	No	Yes
75-07-0	Acetaldehyde	2.88E-05	Yes	Yes
67-64-1	Acetone	8.32E+00	No	Yes
67-64-1	Acrolein	2.50E-05	Yes	Yes
7664-41-7	Ammonia	2.97E-02	Yes	Yes
7440-38-2	Arsenic	1.86E-06	Yes	Yes
107-02-8	Benzene	5.38E-05	Yes	Yes
7440-41-7	Beryllium	1.11E-07	Yes	Yes
85-68-7	Butyl benzyl phthalate	7.80E-04	No	Yes
7440-43-9	Cadmium	1.02E-05	Yes	Yes
18540-29-9	Chromium, Hexavalent	1.30E-05	Yes	Yes
112-34-5	Diethylene glycol monobutyl ether	2.24E-02	No	Yes
111-90-0	Diethylene glycol monoethyl ether	2.24E-02	No	Yes
34590-94-8	Dipropylene glycol monomethyl ether	3.83E-04	No	Yes
100-41-4	Ethyl Benzene	6.40E-05	Yes	Yes
107-21-1	Ethylene glycol	5.69E-03	Yes	Yes
111-76-2	Ethylene glycol monobutyl ether (2-Butoxyethanol)	1.41E-01	No	Yes
50-00-0	Formaldehyde	1.14E-04	Yes	Yes
822-06-0	Hexamethylene- 1,6-diisocyanate	1.43E-05	Yes	Yes
100-54-3	Hexane	4.27E-05	Yes	Yes
67-63-0	Isopropyl alcohol (2-Propanol)	8.03E+00	No	Yes
98-82-8	Isopropyl benzene (Cumene)	3.30E-05	Yes	Yes
7439-96-5	Manganese	3.53E-06	Yes	Yes
7439-97-6	Mercury	2.41E-06	Yes	Yes
108-10-1	Methyl isobutyl ketone (MIBK, hexane)	2.27E-01	Yes	Yes
71-36-3	n-Butyl alcohol (1-Butanol)	6.81E-02	No	Yes
91-20-3	Naphthalene	2.78E-06	Yes	Yes
7440-02-0	Nickel	1.95E-05	Yes	Yes
	POM (inc. PAHs)	3.71E-06	Yes	Yes
115-07-1	Propylene	4.92E-03	No	Yes
108-65-6	Propylene glycol monomethyl ether acetate	2.27E-01	No	Yes
	Selenium	2.23E-07	Yes	Yes
7631-86-9	Silica, crystalline (respirable)	3.69E-01	No	Yes

CAS Number or DEQ ID*	Pollutant	PTE (tpy)	FHAP	CAO TAC
358*	Talc containing asbestiform fibers	3.48E-04	No	Yes
108-88-3	Toluene	2.27E-01	Yes	Yes
1330-20-7	Xylenes	2.34E-04	Yes	Yes
Total HAPs and TACs (tpy)			**0.49**	**18.18**

*DEQ ID number

New Source Performance Standards (NSPS)

19. Lanz is not subject to any of these NSPSs because the facility is a millwork manufacturer of kitchen cabinets.

    19.a. NSPS 40 CFR part 60 subpart EE – Standards of Performance for Surface Coating of Metal Furniture.

    19.b. 40 CFR part 60 subparts MM or MMa – Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.

    19.c. 40 CFR part 60 subpart SS – Standards of Performance for Industrial Surface Coating: Large Appliances.

    19.d. 40 CFR part 60 subpart TT – Standards of Performance for Metal Coil Surface Coating.

    19.e. 40 CFR part 60 subpart WW – Standards of Performance for Beverage Can Surface Coating.

    19.f. 40 CFR part 60 subpart TTT – Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines.

    19.g. 40 CFR part 60 subpart TTTa – Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines for Which Construction, Reconstruction, or Modification Commenced After June 21, 2022.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

20. 40 CFR part 63 subpart JJ – National Emissions Standards for Wood Furniture Manufacturing Operations. Lanz is not a major source of hazardous air pollutants (HAPs) and is therefore, not subject to this subpart.

21. 40 CFR part 63 subpart QQQQ – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products. Lanz is not subject to this subpart because the facility does not surface coat doors, windows, flooring, interior wall paneling and tileboard, other interior panel or exterior siding and primed doorskins.

22. 40 CFR part 63 subpart HHHHHH– National Emissions Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. Lanz does not use methylene chloride (MeCl), is not an autobody refinishing operations, and does not use target HAPs and is therefore, not subject to this subpart.

23. Lanz is not subject to any of these NESHAPs because the facility millwork manufacturer of kitchen cabinets.

    23.a. 40 CFR part 63 subpart II – National Emissions Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Surface Coating).

    23.b. 40 CFR part 63 subpart IIII – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light-Duty Trucks.

23.c. 40 CFR part 63 subpart KKKK – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Metal Cans.

23.d. 40 CFR part 63 subpart MMMM – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.

23.e. 40 CFR part 63 subpart NNNN – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Large Appliances.

23.f. 40 CFR part 63 subpart PPPP – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.

23.g. 40 CFR part 63 subpart RRRR – National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Metal Furniture.

23.h. 40 CFR part 63 subpart SSSS– National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Metal Coil.

Toxic Release Inventory

24. 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.

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. The facility's NAICS code is 337110 – Wood Kitchen Cabinet and Countertop Manufacturing which is subject to the TRI program, but the facility falls below the reporting limits and does not have to report to the TRI program.

Compliance History

25. This facility is regularly inspected by LRAPA and occasionally by other regulatory agencies. The following table indicates the inspection history of this facility since the facility began operation:

Type of Inspection	Date	Results
LRAPA - Full Compliance Evaluation	07/15/2011	In compliance
LRAPA - Full Compliance Evaluation	07/092013 & 07/10/2013	In compliance
LRAPA - Full Compliance Evaluation	08/05/2015	In compliance
LRAPA - Full Compliance Evaluation	08/31/2017	In compliance
LRAPA - Full Compliance Evaluation	03/11/2019	In compliance
LRAPA - Full Compliance Evaluation	09/29/2021	In compliance
LRAPA - Full Compliance Evaluation	06/01/2023	In compliance

Recordkeeping Requirements

26. The facility must maintain records for a period of at least five (5) years. All records must be available for inspection by authorized representatives of LRAPA. The records required to be kept are as follows:

    26.a. PSEL monthly calculations;
    26.b. Natural gas usage;
    26.c. Visible emission surveys and corrective action taken;
    26.d. Description of all inspections and maintenance performed on air contaminant control systems;
    26.e. Filter efficiency of spray booth or spray booth chambers dry filter control devices;
    26.f. Types of spray coating application technology used at the facility;
    26.g. Procedures relating to manual spray gun cleaning;
    26.h. Training documentation: name and of person trained, date of training;
    26.i. Documents of the standard operating procedures for storage containers used for VOC-containing materials;
    26.j. Records of types, quantity, density, VOC and solid content of all adhesives, coatings (including catalysts and reducers), sealers, topcoats and solvents used for BACT calculations; and
    26.k. All Certified Product Data Sheets (CPDS) or Safety Data Sheets (SDS) for all products used.

27. The facility must maintain logs of all written or telephone complaints.

Reporting Requirements

28. Lanz must submit an annual report on February 15th of each year. The report must contain:

    28.a. PSEL calculations;
    28.b. Natural gas usage;
    28.c. Certified Product Data Sheets (CPDS) or Safety Data Sheets (SDS) for any new product used; and
    28.d. Monthly averaging calculation results for each calendar month for the year.

Public Notice

29. The draft permit was on public notice April 17, 2024 to May 23, 2024. Pursuant to LRAPA 37-0066(4)(a), issuance of a renewed Standard ACDP requires public notice as a Category III permit action 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.

BE/aa
5/28/2024

Abbreviations, Acronyms, and Definitions

ACDP	Air Contaminant Discharge Permit	NA	Not applicable
AIA	Aggregate Insignificant Activities	NESHAP	National Emissions Standards for Hazardous Air Pollutants
Agency	Lane Regional Air Protection Agency	NO_X	Nitrogen oxides
ASTM	American Society for Testing and Materials	NSPS	New Source Performance Standard
AQMA	Air Quality Maintenance Area	NSR	New Source Review
Calendar year	The 12-month period beginning January 1st and ending December 31st	O_2	Oxygen
		OAR	Oregon Administrative Rules
		ORS	Oregon Revised Statues
		O&M	Operation and Maintenance
CFR	Code of Federal Regulations	Pb	Lead
CEMS	Continuous emissions Monitoring system	PCD	Pollution control device
		PIR	Paved Industrial Roads
CMS	Continuous Monitoring System	PM	Particulate matter
		PM_{10}	Particulate matter less than 10 microns in size
CPMS	Continuous parameter Monitoring system	$PM_{2.5}$	Particulate matter less than 2.5 microns in size
CO	Carbon monoxide		
DEQ	Oregon Department of Environmental Quality	ppmv	Part per million by volume
		PSD	Prevention of Significant Deterioration
dscf	dry standard cubic foot		
EPA	US Environmental Protection Agency	PSEL	Plant Site Emission Limit
		PTE	Potential to Emit
FCAA	Federal Clean Air Act	scf	Standard cubic foot
gal	gallon(s)	SER	Significant Emission Rate
gr/dscf	Grains per dry standard cubic foot	SIC	Standard Industrial Code
		SIP	State Implementation Plan
HAP	Hazardous Air Pollutant as defined by LRAPA title 44	SO_2	Sulfur dioxide
		Special Control Area	As defined in LRAPA title 29
lb	pound(s)		
LRAPA	Lane Regional Air Protection Agency	VE	Visible emissions
		VOC	Volatile organic compound
MMBtu	Million British thermal units	Year	A period consisting of any 12-consecutive calendar months
MMcf	Million cubic feet		

Detail Sheets:

PLANT SITE EMISSION LIMITS										
Emission Units	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**NO_X**	**SO_2**	**VOC [1]**	**Single HAP ***	**Aggregate HAP ***	**GHG**
	tpy	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**	**tpy**
EU-1: Surface Coaters: VOC Emissions [1]	0.0	0.0	0.0	0.0	0.0	0.0	62.02	0.23	0.46	0.0
Aggregate Insignificant Activities:										
EU-1: Surface Coaters PM Emissions	0.23	0.23	0.23	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Sawdust Handling System	0.21	0.21	0.21	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Combustion Units	0.02	0.02	0.02	0.78	0.93	0.02	0.05	0.0	0.0	1115
Potential to Emit (PTE)	0.46	0.46	0.46	0.78	0.93	0.02	62.07	0.23	0.46	1115
PSELs	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**62**	**0.00**	**0.00**	**0.0**
(1) The facility's VOC emissions are based on the highest density and VOC percentage containing product from the 2023 Annual Report.										

Pollutant	Baseline [1]	Netting Basis [2]		Plant Site Emission Limit (PSEL) [3]		PSEL Increase	PTE Emissions	Increase over Netting Basis	SER
		Previous	Proposed	Previous PSEL	Proposed PSEL				
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy
PM	0.0	0.0	0.0	24	0.0	-24.0	0.46	0.46	25
PM_{10}	0.0	0.0	0.0	14	0.0	-14.0	0.46	0.46	15
$PM_{2.5}$	NA	0.0	0.0	9.0	0.0	-9.0	0.46	-0.50	10
CO	0.0	0.0	0.0	0.0	0.0	0.0	0.78	0.0	99
NO_X	0.0	0.0	0.0	0.0	0.0	0.0	0.93	0.0	39
SO_2	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0	39
VOC	0.0	0.0	0.0	70	62	-8.0	62.07	62.0	39
GHG [3]	1,091	1,091	1,091	74,000	0.0	-74,000.0	1,115	-1091.0	74,000
Individual HAP	0.0	0.0	0.0	0.0	0.0	0.0	0.23	0.0	9
Combined HAP	0.0	0.0	0.0	0.0	0.0	0.0	0.46	0.0	24

(1) Baseline emission rates (BERs) have been set at zero (0) for all criteria pollutants because the facility was not in operation during the 1978 baseline years.

(1) BER for $PM_{2.5}$ was not established in accordance with LRAPA 42-0048(3).

(1) BER for GHG was evaluated for year 2006 the facility in accordance with LRAPA 42-0048(b).

(2) Proposed netting for VOC was established according to LRAPA 42-0046(3)(e)(B).

(2) Proposed netting basis for GHG was established according to LRAPA 42-0046(a)(b). .

(2) For all other pollutants the netting is zero because the facility was constructed after the 1978 baseline year.

(3) PSELs VOC was set according to LRAPA 42-0041(2). All other pollutants were below the de minimis level.

Mass Balance VOC Equation		
E = RM x D x %VOC		
Where:		Unit
E =	Total Emissions	tpy
RM =	Raw materials	gallons
D =	Density of RM	lb/gal
VOC (average)	Percent of VOC	%
Information:	**Amount**	**Units:**
Raw Material	2,000	gal/month
Density of RM	9.77	lb/gal
Weigted Average VOC	52.90	%
E =	10,337	lb/month
E =	124,040	lb/year
E =	**62.02**	**tons/year**
Using the top five (5) products used at the facility for the last five (5) years, the highest VOC and density were used to calculate VOC emissions.		

					OREGON TOXIC AIR CONTAMINANTS											
					FEDERAL HAZARDOUS AIR POLLUTANTS											
		Actual Throughput (gal) [1]	Potential Throughput (gal) [2]		Ethylene glycol		Hexamethylene- 1,6-diisocyanate		Isopropyl benzene (Cumene)		Methyl isobutyl ketone (MIBK, hexane)		Toluene		Xylene (mixture), including m-xylene, o-xylene, p-xylene	
					107-21-1		822-06-0		98-82-8		108-10-1		108-88-3		1330-20-7	
Manufacturer	Product Type			Density	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year
Sherwin Williams	V66 Catalyst	0	3	7.34			0.13%	0.029	0.30%	0.066						
Sherwin Williams	Conventional Lacquer Clear	190	570	7.97							10%	454.290	10%	454.290		
Sherwin Williams	Clear UV V86 FH643	22684	68052	8.73												
Sherwin Williams	Hydroplus Clear Topcoat	60	180	8.59												
Sherwin Williams	White UV V86WH556	839	2517	9.77												
Heubach	Hostafine White Concentrate	224	672	8.73												
Heubach	Hostafine Black Concentrate	22	66	9.1												
Heubach	Hostafine Red Concentrate	22	66	8.8												
Heubach	Hostafine Yellow Concentrate	42	126	11.5												
Sherwin Williams	Stain Base S67	11914	35742	8.35												
Sherwin Williams	Wood Putty	0	3	10.4												
Sherwin Williams	KEM Aqua Lacquer T75F558	0	3	8.5	3.0%	0.765										
Sherwin Williams	S64 Wiping Stain, Mocha	1	3	7.74											1.0%	0.232
Sherwin Williams	S64 Wiping Stain, Gunmetal	4	12	8.00	3.0%	2.88										
Sherwin Williams	S64 Wiping Stain, Caramel	12	36	7.17	3.0%	7.74										
Sherwin Williams	Acetone	935	2805	6.59												
TOTALS: pounds/year						**11.39**		**0.03**		**0.07**		**454.29**		**454.29**		**0.23**
TOTALS: tons/year						**5.69E-03**		**1.43E-05**		**3.30E-05**		**2.27E-01**		**2.27E-01**		**1.16E-04**

1. Actual throughput is based 2023 product usage.

2. Potential throughput was based on a conservative estimate using 2023 actual product usage multiplied by 3 shifts.

					OREGON TOXIC AIR CONTAMINANTS											
		Actual Throughput (gal) [1]	Potential Throughput (gal) [2]		1,2,4-Trimethylbenzene		2-Butanone (methyl ethyl ketone)		Acetone		Butyl benzyl phthalate		Diethylene glycol monobutyl ether		Diethylene glycol monoethyl ether	
					95-63-6		78-93-3		67-64-1		85-68-7		112-34-5		111-90-0	
Manufacturer	Product Type			Density	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year
Sherwin Williams	V66 Catalyst	0	3	7.34	90%	19.789										
Sherwin Williams	Conventional Lacquer Clear	190	570	7.97			21%	954.009								
Sherwin Williams	Clear UV V86 FH643	22684	68052	8.73												
Sherwin Williams	Hydroplus Clear Topcoat	60	180	8.59									2.9%	44.840	2.9%	44.840
Sherwin Williams	White UV V86WH556	839	2517	9.77												
Heubach	Hostafine White Concentrate	224	672	8.73												
Heubach	Hostafine Black Concentrate	22	66	9.1												
Heubach	Hostafine Red Concentrate	22	66	8.8												
Heubach	Hostafine Yellow Concentrate	42	126	11.5												
Sherwin Williams	Stain Base S67	11914	35742	8.35												
Sherwin Williams	Wood Putty	0	3	10.4							5.0%	1.560				
Sherwin Williams	KEM Aqua Lacquer T75F558	0	3	8.5												
Sherwin Williams	S64 Wiping Stain, Mocha	1	3	7.74												
Sherwin Williams	S64 Wiping Stain, Gunmetal	4	12	8.00												
Sherwin Williams	S64 Wiping Stain, Caramel	12	36	7.17												
Sherwin Williams	Acetone	935	2805	6.59					90%	16636						
TOTALS: pounds/year						**19.79**		**954.01**		**16636.46**		**1.56**		**44.84**		**44.84**
TOTALS: tons/year						**9.89E-03**		**4.77E-01**		**8.32E+00**		**7.80E-04**		**2.24E-02**		**2.24E-02**

					OREGON TOXIC AIR CONTAMINANTS													
		Actual Throughput (gal) [1]	Potential Throughput (gal) [2]		Dipropylene glycol monomethyl ether		Ethylene glycol monobutyl ether (2-Butoxyethanol)		Isopropyl alcohol (2-Propanol)		n-Butyl alcohol (1-Butanol)		Propylene glycol monomethyl ether acetate		Silica, crystalline (respirable)		Talc containing asbestiform fibers	
					34590-94-8		111-76-2		67-63-0		71-36-3		108-65-6		7631-86-9		358	
Manufacturer	Product Type			Density	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year	% wt	lb/year
Sherwin Williams	V66 Catalyst	0	3	7.34														
Sherwin Williams	Conventional Lacquer Clear	190	570	7.97			5.0%	227.145	25%	1135.725	3.0%	136.287	10%	454.290				
Sherwin Williams	Clear UV V86 FH643	22684	68052	8.73														
Sherwin Williams	Hydroplus Clear Topcoat	60	180	8.59			3.0%	46.386										
Sherwin Williams	White UV V86WH556	839	2517	9.77											3.0%	737.733	10%	
Heubach	Hostafine White Concentrate	224	672	8.73														
Heubach	Hostafine Black Concentrate	22	66	9.1														
Heubach	Hostafine Red Concentrate	22	66	8.8														
Heubach	Hostafine Yellow Concentrate	42	126	11.5														
Sherwin Williams	Stain Base S67	11914	35742	8.35					5.0%	14922.285								
Sherwin Williams	Wood Putty	0	3	10.4											1.0%	0.312		
Sherwin Williams	KEM Aqua Lacquer T75F558	0	3	8.5	3.0%	0.765	3.0%	0.765										
Sherwin Williams	S64 Wiping Stain, Mocha	1	3	7.74													3.0%	0.697
Sherwin Williams	S64 Wiping Stain, Gunmetal	4	12	8.00														
Sherwin Williams	S64 Wiping Stain, Caramel	12	36	7.17			3.0%	7.744										
Sherwin Williams	Acetone	935	2805	6.59														
TOTALS: pounds/year						**0.77**		**282.04**		**16058.01**		**136.29**		**454.29**		**738.04**		**0.70**
TOTALS: tons/year						**3.83E-04**		**1.41E-01**		**8.03E+00**		**6.81E-02**		**2.27E-01**		**3.69E-01**		**3.48E-04**

PM Emissions from Surface Coaters		
Information		
Overspray Percent	20	%
Filter Efficiency	99	%
Emission Factor	0.002	
Conversion	2000	lb/ton
Conversion	12	month/year

EU-2: Surface Coaters		
Surface Coater Throughput	2000	gallons/month
Density of coatings (averaged)	9.77	lb/gal
Total throughput of coaters	19540	lbs/month
EF	0.002	
Total monthly PM emissions	39.08	lb/month
Total PM emissions	**0.23**	**tons/year**

Emission factor are based on overspray of 20% during application of the coating and a filter efficiency of 99%.

The density was based on the weighted average density of the 4 most used products from 2019-2022.

Sawdust Handling System		
Baghouse(s) Throughput: Dry Chips, Shavings, Sawdust w/ Baghouse Control		
Emission Factor	0.001	lb/dry bone ton (BDT)
Sawdust Handling Throughput	10000	BDT/year
Total PM Emission	10	lb
	0.01	**tons/year**
Baghouse(s) Throughput: Sanderdust w/ Baghouse Control		
Emission Factor	0.04	lb/dry bone ton (BDT)
Sawdust Handling Throughput	10000	BDT/year
Total PM Emission	400	lb
	0.20	**tons/year**
Total PM	**0.21**	**tons/year**

For PM emissions DEQ /AQ-EF02 Emission Factors Cyclone - Dry and Green chips, Shavings, Hogged Fuel/Bark, Green Sawdust - Baghouse control was used

For PM emissions DEQ /AQ-EF02 Emission Factors Cyclone -Sanderdust using Baghouse control.

PM_{10} and $PM_{2.5}$ are fractions of PM and are de minimis

Combustion Specifications		
Max Heat Input	2.173	MMBtu/hr
Heat Value - Natural Gas	1026	MMBtu/MMCF
Max Hrs Operation	8760	hr/yr

Criteria Pollutants	NG Emission Factor (lb/MMCF)	NG Emission Factor Units	Potential Emissions (TPY)
$PM/PM_{10}/PM_{2.5}$	2.5	lbs/MMCF	0.02
Carbon Monoxide	84	lbs/MMCF	0.78
Nitrogen Oxides	100	lbs/MMCF	0.93
Sulfur Dioxide	1.7	lbs/MMCF	0.02
VOCs	5.5	lbs/MMCF	0.05
GHGs (CO_2 equiv.)	117	lbs/MMBtu	1,115

Combustion FHAP/TAC Emissions

FHAP/TAC Emissions	CAS	NG Emission Factor (lb/MMCF)	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Organics					
Acetaldehyde	75-07-0	0.0031	2.88E-05	Yes	Yes
Acrolein	67-64-1	0.0027	2.50E-05	Yes	Yes
Benzene	107-02-8	0.0058	5.38E-05	Yes	Yes
Ethyl Benzene	100-41-4	0.0069	6.40E-05	Yes	Yes
Formaldehyde	50-00-0	0.0123	1.14E-04	Yes	Yes
Hexane	100-54-3	0.0046	4.27E-05	Yes	Yes
Naphthalene	91-20-3	0.0003	2.78E-06	Yes	Yes
POM (inc. PAHs)		0.0004	3.71E-06	Yes	Yes
Propylene	115-07-1	0.5300	4.92E-03	No	Yes
Toluene	108-88-3	0.0265	2.46E-04	Yes	Yes
Xylenes	1330-20-7	0.0197	1.83E-04	Yes	Yes
Inorganic Gases					
Ammonia	7664-41-7	3.2000	2.97E-02	No	Yes
Metals					
Arsenic	7440-38-2	2.0E-04	1.86E-06	Yes	Yes
Beryllium	7440-41-7	1.2E-05	1.11E-07	Yes	Yes
Cadmium	7440-43-9	1.1E-03	1.02E-05	Yes	Yes
Chromium, Hexavalent	18540-29-9	1.4E-03	1.30E-05	Yes	Yes
Manganese	7439-96-5	3.8E-04	3.53E-06	Yes	Yes
Mercury	7439-97-6	2.6E-04	2.41E-06	Yes	Yes
Nickel	7440-02-0	2.1E-03	1.95E-05	Yes	Yes
Selenium	7782-49-2	2.4E-05	2.23E-07	Yes	Yes
		Total Emissions =	3.5E-02	8.1E-04	3.5E-02

Surface Coaters and Combustion FHAP/TAC Emissions

FHAP/TAC Emissions	CAS	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
1,2,4-Trimethylbenzene	95-63-6	9.89E-03	No	Yes
2-Butanone (methyl ethyl ketone)	78-93-3	4.77E-01	No	Yes
Acetaldehyde	75-07-0	2.88E-05	Yes	Yes
Acetone	67-64-1	8.32E+00	No	Yes
Acrolein	67-64-1	2.50E-05	Yes	Yes
Ammonia	7664-41-7	2.97E-02	Yes	Yes
Arsenic	7440-38-2	1.86E-06	Yes	Yes
Benzene	107-02-8	5.38E-05	Yes	Yes
Beryllium	7440-41-7	1.11E-07	Yes	Yes
Butyl benzyl phthalate	85-68-7	7.80E-04	No	Yes
Cadmium	7440-43-9	1.02E-05	Yes	Yes
Chromium, Hexavalent	18540-29-9	1.30E-05	Yes	Yes
Diethylene glycol monobutyl ether	112-34-5	2.24E-02	No	Yes
Diethylene glycol monoethyl ether	111-90-0	2.24E-02	No	Yes
Dipropylene glycol monomethyl ether	34590-94-8	3.83E-04	No	Yes
Ethyl Benzene	100-41-4	6.40E-05	Yes	Yes
Ethylene glycol	107-21-1	5.69E-03	Yes	Yes
Ethylene glycol monobutyl ether (2-Butoxyethanol)	111-76-2	1.41E-01	No	Yes
Formaldehyde	50-00-0	1.14E-04	Yes	Yes
Hexamethylene- 1,6-diisocyanate	822-06-0	1.43E-05	Yes	Yes
Hexane	100-54-3	4.27E-05	Yes	Yes
Isopropyl alcohol (2-Propanol)	67-63-0	8.03E+00	No	Yes
Isopropyl benzene (Cumene)	98-82-8	3.30E-05	Yes	Yes
Manganese	7439-96-5	3.53E-06	Yes	Yes
Mercury	7439-97-6	2.41E-06	Yes	Yes
Methyl isobutyl ketone (MIBK, hexane)	108-10-1	2.27E-01	Yes	Yes
n-Butyl alcohol (1-Butanol)	71-36-3	6.81E-02	No	Yes
Naphthalene	91-20-3	2.78E-06	Yes	Yes
Nickel	7440-02-0	1.95E-05	Yes	Yes
POM (inc. PAHs)		3.71E-06	Yes	Yes
Propylene	115-07-1	4.92E-03	No	Yes
Propylene glycol monomethyl ether acetate	108-65-6	2.27E-01	No	Yes
Selenium	7782-49-2	2.23E-07	Yes	Yes
Silica, crystalline (respirable)	7631-86-9	3.69E-01	No	Yes
Talc containing asbestiform fibers	358*	3.48E-04	No	Yes
Toluene	108-88-3	2.27E-01	Yes	Yes
Xylenes	1330-20-7	2.34E-04	Yes	Yes
		1.82E+01	4.90E-01	1.82E+01