Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit

Review Report

Horizon Prestain, Inc. **Permit No. 203534**
11 North Danebo Avenue
Eugene, OR 97402

Source Information:

Primary SIC	2599
NAICS	337127
Source Categories (LRAPA title 37, Table 1)	B:69. – Surface coating operations: coating operations whose actual or expected usage of coating materials is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coatings.
Public Notice Category	III

Compliance and Emissions Monitoring Requirements:

Unassigned Emissions	N	COMS	N
Emission Credits	N	CEMS	N
Compliance Schedule	N	Ambient monitoring	N
Source Test [date(s)]	N		

Reporting Requirements

Annual Report (due date)	2/15	Quarterly Report (due date)	N
Semi-Annual Report (due date)	N	Excess Emissions Report	Y
GHG Report (due date)	N	Other Reports (due date)	N
Monthly Report (due date)	N		

Air Programs

NSPS (list subparts)	N	Major FHAP Source	N
NESHAP (list subparts)	N	Federal Major Source	N
Compliance Assurance Monitoring (CAM)	N	TACT	N
		Type A State New Source Review	N
Regional Haze (RH)	N	Type B State New Source Review	N
40 CFR Part 68 Risk Management	N	Prevention of Significant Deterioration (PSD)	N
Cleaner Air Oregon (CAO)	N		
Synthetic Minor (SM)	N	Nonattainment New Source Review (NNSR)	N
SM-80	N		
Title V	N		

Permittee Identification

1. Horizon Prestain, Inc. ("the facility" or "Horizon Prestain") operates a surface coating and woodworking operation at 11 North Danebo Avenue, Eugene, Oregon. The offices of Horizon Prestain are located at 41 North Danebo Avenue, Eugene, Oregon. The facility also does business as Horizon Painting. The facility began operations in 1990.

2. The primary SIC code for this facility is 2599 – Furniture and Fixtures, Not Elsewhere Classified. The primary NAICS code for this facility is 337127 – Institutional Furniture Manufacturing.

General Background

3. Horizon Prestain operates a surface coating and woodworking operation. The facility primarily prepares and surface coats wood panels/lumber for the building & fabrication industries, but also produces custom woodworking products. The emissions units at the facility include one (1) coating machine, two (2) paint booths with four (4) spray guns, and sanding and woodworking operations controlled by a baghouse. The paint booths use high volume, low pressure (HVLP) and air assisted airless (AAA) paint spray guns. The source typically operates 2,080 hours per year.

Reasons for Permit Action and Fee Basis

4. The proposed permit is a renewal of an existing Simple Air Contaminant Discharge Permit (ACDP) that was issued on October 25, 2019 and was originally scheduled to expire on October 25, 2024. The facility submitted a renewal application on May 8, 2024. Because the facility submitted a timely renewal application at least 120 days prior to the expiration of the Simple ACDP, the facility is authorized to continue operating until the Simple ACDP is renewed. The renewed Simple ACDP will be valid for up to ten (10) years.

Attainment Status

5. The facility is located in an area that has been designated as attainment or unclassified for all criteria pollutants. The facility is inside the Eugene-Springfield UGB as defined in LRAPA 29-0010 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. The facility is located within 100 kilometers of three (3) Class I air quality protection areas: Diamond Peak Wilderness, Mount Washington Wilderness and Three Sisters Wilderness area.

Permitting History

6. LRAPA has reviewed and issued the following permitting actions to this facility since the last Simple ACDP renewal was issued on October 25, 2019:

Date(s) Approved/Valid	Permit Action Type	Description
10/25/2019 – 10/25/2024	Simple ACDP	Renewal.
09/10/2024 – 09/10/2034	Simple ACDP	Renewal.

Emissions Unit Description

7. The emissions units regulated by this permit are the following:

Emissions Unit ID	Description	Pollution Control Device (PCD ID)	Installed / Last Modified
6F-SPCM	Panel Coating Machine (Stainer)	None	1982
1A-SB1	Bleeker Bros. Spray Paint Booth #1	Dry Filters (NA)	1986
2B-SB2	Binks Spray Paint Booth #2	Dry Filters (NA)	1995
5E-BH	Sanding Operations	Baghouse (S5E-BH)	1996

Significant Emissions Units

8. Emissions Unit 6F-SPCM (Panel Coating Machine (Stainer)
The facility operates a panel coating machine that uses flood coating to apply coatings. Total facility-wide potential VOC emissions are based on 2018 calendar year actual emissions increased by the ratio of 8,760 hours per year divided by 2,080 hours per year. 2018 calendar year actual emissions represent the highest year of production in the last ten (10) years. The VOC emissions from this process are accounted for in the facility-wide VOC tracking.

9. Emissions Unit 1A-SB1 (Bleeker Bros. Spray Paint Booth #1)
Emissions Unit 2B-SB2 (Binks Spray Paint Booth #2)
The facility operates two (2) spray booths. The particulate matter from paint overspray is controlled by dry filters. The dry filters achieve at least 98% capture of overspray particulate matter emissions. Total facility-wide potential VOC emissions are based on 2018 calendar year actual emissions increased by the ratio of 8,760 hours per year divided by 2,080 hours per year. 2018 calendar year actual emissions represent the highest year of production in the last ten (10) years. The VOC emissions from these processes are accounted for in the facility-wide VOC tracking. The total particulate matter emissions from the facility were determined to be de minimis on a potential-to-emit basis.

10. Emissions Unit 5E-BH (Sanding Operations)
The facility has a number of sanding operations. The particulate matter emissions from Sanding Operations are controlled by one (1) baghouse. The potential particulate matter emissions from Sanding Operations are based on an assumed collection of 100 pounds per hour of sander dust and an emission factor of 0.04 pounds of particulate matter emissions per bone dry ton (source LRAPA AQGP-010). The total particulate matter emissions from the facility were determined to be de minimis on a potential-to-emit basis.

Nuisance, Deposition and Other Emission Limitations

11. Under LRAPA 49-010(1), the permittee 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 the receipt of these complaints.

12. Under LRAPA 32-055, the permittee 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 the receipt of these complaints.

13. Under LRAPA 32-090(1), the permittee 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 the receipt of these complaints.

Emission Limitations

14. The facility is paved and no significant materials are stored outside. As such, the permit will not include the general requirements for fugitive emissions under LRAPA 48-015.

15. The facility is subject to the visible emission limitations under LRAPA 32-010(3). For sources, other than wood-fired boilers, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a quarter. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.

16. The non-fuel burning equipment at this source that emits particulate matter is subject to the following particulate matter emission limitations under LRAPA 32-015(2)(b)(B): For sources installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are no representative compliance source test results, the particulate matter emission limit is 0.14 grains per dry standard cubic foot. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a quarter. The permittee is required to take corrective action if any visible emissions are identified, contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.

17. Each emissions unit at the facility is subject to the process weight rate emission limitations under LRAPA 32-045(1). No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in LRAPA 32-8010, for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a quarter. The permittee is required to take corrective action if any visible emissions are identified, contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.

18. The spray booth operations and particulate matter emissions control equipment at the facility must be operated and maintained at the highest and best practicable treatment and control of air contaminant emissions so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling, and other deleterious factors at the lowest possible levels under LRAPA 32-005(1). Compliance for the control equipment at the facility will be demonstrated through implementation of an Operation & Maintenance Plan. For the spray booth operations at the facility, the permittee will be required to (a) use dry filters achieving at least 98% captures of overspray particulate matter emissions, (b) use high transfer efficiency spray guns (i.e., high volume, low pressure (HVLP), airless, or air-assisted airless (AAA) spray gun technology), (c) clean spray guns in an approved manner, (d) only allow trained personnel to spray apply coatings, and (e) keep VOC-containing materials closed when not in use.

Typically Achievable Control Technology (TACT)

19. LRAPA 32-008(1) requires an existing unit a facility to meet TACT if the emission unit meets the following criteria: The emission unit is not already subject to emission standards for the regulated pollutant under LRAPA title 30, title 32, title 33, title 38, title 39 or title 46 at the time TACT is required; the source is required to have a permit; the emission unit has emissions of criteria

pollutants equal to or greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant; and LRAPA determines that air pollution control devices and emission reduction processes in use for the emissions do not represent TACT and that further emission control is necessary to address documented nuisance conditions, address an increase in emissions, ensure that the source is in compliance with other applicable requirements, or to protect public health or welfare or the environment. Emissions Units 6F-SPCM and 1A-SB1 are considered existing sources.

19.a. The particulate matter emissions from the facility are de minimis. As such, TACT does not apply for particulate matter emissions for Emissions Unit 1A-SB-1. Emissions Unit 6F-SPCM does not have particulate matter emissions.

19.b. The following emissions units are subject to TACT for VOC emissions: Emission Units 6F-SPCM and 1A-SB1. While a formal TACT determination has not been conducted, LRAPA has determined that the use of high volume, low pressure (HVLP), airless, or air-assisted airless (AAA) spray gun technology likely meets the TACT requirements for Emissions Unit 1A-SB-1. While a formal TACT determination has not been conducted, LRAPA has determined that the use of flood coating likely meets the TACT requirements for Emissions Unit 6F-SPCM.

20. LRAPA 32-008(2) requires new units installed or existing emissions units modified on or after January 1, 1994, meet TACT if the emissions unit meets the following criteria: The emissions 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 emissions unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emissions 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. Emissions Units 2B-SB2 and 5E-BH are considered existing sources.

20.a. The particulate matter emissions from the facility are de minimis. As such, TACT does not apply for particulate matter emissions from Emissions Units 2B-SB2 and 5E-BH.

20.b. The following emissions units are subject to TACT for VOC emissions: 2B-SB2. While a formal TACT determination has not been conducted, LRAPA has determined that the use of high volume, low pressure (HVLP), airless, or air-assisted airless (AAA) spray gun technology likely meets the TACT requirements for this emissions unit.

New Source Performance Standards (NSPSs)

21. There are no emissions units at this facility for which NSPS have been promulgated or are applicable.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

22. LRAPA reviewed the following NESHAPs to determine their applicability to this facility:

22.a. 40 CFR part 63 subpart QQQQ – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products is not applicable because the facility is not a major source of federal HAPs.

22.b. 40 CFR part 63 subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations is not applicable because the facility is not a major source of federal HAPs.

22.c. 40 CFR part 63 subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants for Surface Coating Plastic Parts and Products is not applicable because the

facility spray-applies surface coatings to only wood substrates (i.e., not metal or plastic substrates).

Plant Site Emission Limits (PSELs)

23. Provided below is a summary of the baseline emissions rate, netting basis, and PSELs for this facility.

Pollutant	Baseline Emission Rate (TPY)	Netting Basis		Plant Site Emission Limit (PSEL)		PTE (TPY)	Significant Emission Rate (TPY)
		Previous (TPY)	Proposed (TPY)	Previous PSEL (TPY)	Proposed PSEL (TPY)		
PM	NA	0	0	24	de minimis	0.58	25
PM_{10}	NA	0	0	14	de minimis	0.58	15
$PM_{2.5}$	NA	0	0	9	de minimis	0.58	10
CO	NA	0	0	de minimis	de minimis	NA	100
NO_X	NA	0	0	de minimis	de minimis	NA	40
SO_2	NA	0	0	de minimis	de minimis	NA	40
VOC	NA	0	0	39	36	35.6	40
GHG	NA	0	0	de minimis	de minimis	NA	75,000
Individual HAP	NA	NA	NA	9	NA	1.1	NA
Aggregate HAPs	NA	NA	NA	24	NA	3.2	NA

23.a. The facility does not have a baseline emission rate for pollutants other than $PM_{2.5}$ and GHGs because the facility was not in operation during either the 1977 or 1978 baseline year. A baseline emission rate is not established for $PM_{2.5}$ in accordance with LRAPA 42-0048(3). The facility has no baseline for GHGs because the facility did not request a baseline for this pollutant.

23.b. The netting basis for all pollutants is 0 (zero) in accordance with LRAPA 42-0046(4).

23.c. In accordance with LRAPA 42-0041(2), the PSELs are set equal to the sources potential-to-emit (PTE) for a given regulated pollutant. The previous PSELs for this facility were set at the Generic PSEL as allowed under previous regulations that have been revised. No PSELs are set for pollutants other than VOC in accordance with LRAPA 42-0020(3)(a) because these pollutants are emitted below the de minimis as defined in LRAPA title 12.

23.d. The baseline year, netting basis, and SER are not applicable for limiting federal HAPs. The PSELs for individual federal HAPs and aggregate federal HAPs of nine (9) TPY and 24 TPY, respectively, have been removed from the permit. The facility does not have a potential-to-emit for federal HAPs that will exceed the major source thresholds for individual federal HAPs and aggregate federal HAPs of ten (10) TPY and 25 TPY, respectively.

Unassigned Emissions and Emission Reduction Credits

24. The facility has zero (0) unassigned emissions. Unassigned emissions are equal to the netting basis minus the source's current PTE, minus any banked emission reduction credits. The facility has zero (0) tons of emission reduction credits.

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

25. 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.

Federal Hazardous Air Pollutants/Toxic Air Contaminants

26. The facility currently has PSELs for federal HAPs that limit emissions to no more than nine (9) tons per year for an individual federal HAP and 24 tons per year for the aggregate of all federal HAPs. The capacity of federal HAPs from the facility is below these thresholds and these emission limits will be removed. Therefore, the facility is considered a natural minor or area source of federal HAPs. The maximum potential emission of a single federal HAP is 1.06 tons per year (xylenes). The potential aggregate of all federal HAP emissions is 3.21 tons per year.

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 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 the rule. All federal HAPs are on the list of approximately 600 toxic air contaminants. 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 toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

28. Provided below is a summary of the federal HAP and CAO TAC potential emission estimates based primarily on 2018 usage scaled up by 8,760 hours per year divided by 2,080 hours per year. The facility typically operates one (1) shift per day/ five (5) days per week. 2018 usage is the highest year in the period 2013 through 2023. See the Emission Detail Sheets section of this Review Report for more information.

Pollutant	CAS/DEQ Number	Potential Emissions (TPY)	Federal HAP	CAO TAC
Organics				
Xylene	1330-20-7	1.06	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	6.1E-02	No	Yes
Methanol	67-56-1	0.18	Yes	Yes
Formaldehyde	50-00-0	1.2E-03	Yes	Yes
Glycol Ether Monobutyl Ether	111-76-2	0.23	No	Yes
Ethyl Benzene	100-41-4	0.44	Yes	Yes
Cumene	98-82-8	1.7E-03	Yes	Yes
Methyl Ethyl Ketone	78-93-3	0.10	No	Yes
Methyl Isobutyl Ketone	108-10-1	0.55	Yes	Yes
1-Methoxy-2-Propanol Acetate	108-65-6	0.70	No	Yes
1-Butanol	71-36-3	0.25	No	Yes
Heavy Naphthenic Petroleum Oil	108-65-6	0.51	No	Yes
Ethylene Glycol	107-21-1	0.27	Yes	Yes
Dipropylene Glycol Monomethyl Ether	34590-94-8	0.11	No	Yes
Dioctyl Phthalate	117-81-7	3.5E-02	Yes	Yes
Toluene	108-88-3	0.65	Yes	Yes

Pollutant	CAS/DEQ Number	Potential Emissions (TPY)	Federal HAP	CAO TAC
Benzene	71-43-2	2.1E-05	Yes	Yes
Naphthalene	91-20-3	1.5E-03	Yes	Yes
Ethylene Glycol Monopropyl Ether	2807-30-9	3.6E-03	Yes	Yes
Hexamethylene Diisocyanate	822-06-0	1.0E-04	Yes	Yes

Toxics 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, over which LRAPA has no regulatory authority. 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 2022, this facility did not report any emissions to the TRI program. 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. This facility has not reported any emissions to the TRI program because: (1) they do not employ ten (10) or more full-time employees; and (2) they do not manufacture, process, or otherwise use chemicals in excess of the applicable reporting thresholds.

Compliance History

30. As a Simple ACDP, this facility is inspected by LRAPA at least once every ten (10) years. The following table indicates the Full Compliance Evaluation inspection history of this facility since the last Simple ACDP renewal was issued on October 25, 2019:

Agency	Type of Inspection	Date	Results
LRAPA	Full Compliance Evaluation	04/02/2019	No evidence of non-compliance

31. LRAPA has not taken any enforcement action against this facility since the last Simple ACDP renewal was issued on October 25, 2019.

Source Testing History

32. The facility is not required to conduct source testing at this time. LRAPA is not aware of any historical source testing conducted at this facility.

Recordkeeping Requirements

33. The facility is required to keep and maintain a record of the following information for a period of at least five (5) years.

Activity	Parameter	Units	Minimum Recording Frequency
PSEL Recordkeeping			
VOC-containing material CPDS or SDS	Each coating and solvent	NA	Maintain documentation
VOC-containing material usage	Material name and usage	Gallons	Monthly
VOC-containing material usage	Density of material	Pounds per gallon	Each coating and solvent
VOC-containing material usage	VOC content	% by weight	Each coating and solvent
Spray booth filter particulate matter control efficiency	Control efficiency	%	Maintain documentation from each filter manufacturer
Spray booth filter replacement	Occurrence	NA	Upon replacement
Spray booth training	Training logs / certifications	NA	Maintain documentation of training
Spray coating application technology	Documentation	NA	Maintain documentation for each spray gun
General Recordkeeping			
HAP-containing material CPDS or SDS	Each coating and solvent	NA	Maintain documentation
HAP-containing material usage	Material name and usage	Gallons	Monthly
HAP-containing material usage	Density of material	Pounds per gallon	Each coating and solvent
HAP-containing material usage	VOC content	% by weight	Each coating and solvent
Complaints from the public	Log each complaint and the resolution	NA	Upon receipt
Visible Emission Survey	Opacity	See Condition 10	Quarterly
Baghouse maintenance	Occurrence	NA	As performed
Operation and Maintenance Plan	--	--	Maintain current version on-site
Excess emissions log of all planned and unplanned excess emissions	See Condition G16	NA	Per occurrence

Reporting Requirements

34. 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
PSEL pollutant emissions as calculated according to Condition 5 of the permit, including supporting calculations. The summary must include VOC emission calculations corresponding to each 12-month consecutive period in the previous calendar year.	Annual	February 15
A summary of maintenance and repairs performed on any pollution control devices at the facility.	Annual	February 15
A summary of all complaints received by the permittee and the resolution as required by Condition G11 of the proposed permit.	Annual	February 15
The excess emissions log required by Condition G16 of the proposed permit, if any planned or unplanned excess emissions have occurred during the reporting period.	Annual	February 15

35. 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 CO_2 equivalents per year. If the source ever emits more than this amount, they will be required to report greenhouse gas emissions.

Public Notice

36. Pursuant to paragraph 37-0064(5)(a), issuance of a renewed Simple Air Contaminant Discharge Permit requires a Category III public notice according to title 31. In accordance with paragraph 31-0033(3)(c), LRAPA will provide public 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 August 2, 2024 through September 9, 2024. No written comments were submitted during the public comment period. No public hearing was requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals.

JJW/aa
09/10/2024

Emission Details

Horizon Prestain
Emission Detail Sheets
Facility Potential Emissions Summary

Criteria Pollutant Emissions

	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	NOx (TPY)	CO (TPY)	SO2 (TPY)	VOC (TPY)	GHGs (TPY)
PTE	0.58	0.58	0.58	0.00	0.00	0.00	35.6	0
PSEL	de minimis	de minimis	de minimis	de minimis	de minimis	de minimis	36	de minimis

FHAP/TAC Emissions

Pollutant	CAS/DEQ Number	PTE (lbs/yr)	Federal HAP	CAO TAC
Organics				
Xylene	1330-20-7	2,128	Yes	Yes
Ethanol	64-17-5	1,632	No	No
1,2,3-Trimethylbenzene	526-73-8	0	No	Yes
1,2,4-Trimethylbenzene	95-63-6	121	No	Yes
1,3,5-Trimethylbenzene	108-67-8	0	No	Yes
Methanol	67-56-1	357	Yes	Yes
Formaldehyde	50-00-0	2	Yes	Yes
Naptha (Petrolem), Hydrodesulfurized Heavy	64742-82-1	12	No	No
Solvent Naptha, Light Aromatic	64742-95-6	234	No	No
Mineral Spirits	8052-41-3	3,085	No	No
Mineral Spirits	64742-88-7	26,523	No	No
Isobutyl Alcohol	78-83-1	841	No	No
Mineral Spirits	64742-48-9	7	No	No
Mineral Spirits	64741-41-9	264	No	No
Vm&P Naptha	8032-32-4	147	No	No
4-Methyl-Benzenesulfonic Acid	104-15-4	15	No	No
Glycol Ether Monobutyl Ether	111-76-2	466	No	Yes
Nonane	111-84-2	38	No	No
Ethyl Benzene	100-41-4	889	Yes	Yes
Naptha, Petroleum, Hydrotreated Light	64742-49-0	69	No	No
Light Aliphatic Hydrocarbon	64742-47-8	1,124	No	No
Heavy Naphthenic Petroleum Oil	64742-52-5	60	No	No
Lubricating Oils, Petroleum, Hydrotreated Spe	64742-58-1	63	No	No
Methyl Ethyl Ketoxime	96-29-7	11	No	No
Cumene	98-82-8	3	Yes	Yes
Mineral Spirits	64741-65-7	346	No	No
Light Aliphatic Hydrocarbon Solvent	64742-89-8	2,829	No	No
Supersene (Kerosene)	8008-20-6	1,006	No	No
Methyl Ethyl Ketone (Mek)	78-93-3	206	No	Yes
Methyl Isobutyl Ketone (Mibk)	108-10-1	1,105	Yes	Yes
N-Butyl Acetate	123-86-4	4,201	No	No
1-Methoxy-2-Propanol Acetate	108-65-6	1,404	No	Yes
1-Butanol	71-36-3	490	No	Yes
Heavy Naphthenic Petroleum Oil	108-65-6	1,027	No	Yes
P-Chlorobenzotrifluoride	98-56-6	2	No	No
Ethylene Glycol	107-21-1	545	Yes	Yes
Dipropylene Glycol Monomethyl Ether	34590-94-8	218	No	Yes
2-Butanone Oxime	96-29-7	202	No	No
3-Iodo-2-Propynyl Butylcarbamate	554-53-6	2	No	No
Cobalt Bis(2-Ethylhexanoate)	136-52-7	478	No	No
Dioctyl Phthalate	117-81-7	70	Yes	Yes
Methyl Amyl Ketone	110-43-0	0	No	No
Isobutyl Acetate	110-19-0	58	No	No
Ethyl Acetate	141-78-6	79	No	No
Isobutyl Isoburyrate	97-85-8	58	No	No
Toluene	108-88-3	1,305	Yes	Yes
Benzene	71-43-2	0	Yes	Yes
Naphthalene	91-20-3	3	Yes	Yes
Cobalt Neodenoate	27253-31-2	0	No	No
Ethylene Glycol Monopropyl Ether	2807-30-9	7	Yes	Yes
2-Ethylhexanoic Acid, Zirconium Salt	22464-99-9	5	No	No
Zinc Naphthenate	12001-85-3	0	No	No
Hexamethylene Diisocyanate	822-06-0	0	Yes	Yes
3-Iodo-2-Propynl Butyl Carbamate	55406-53-6	2	No	No
Fatty Acids, Tall-Oil, Maleated, Cmpds With T	100684-20-6	0	No	No
Isobutylated Urea-Formaldehye Polymer	68002-18-6	0	No	No
Linseed Oil	67746-08-1	8,707	No	No
Petroleum	8002-05-9	7	No	No
Bis(1,2,26,6-Pentamethyl-4-Piperidyl)Sibacate	41556-26-7	12	No	No
Methyl(1,2,26,6-Pentamethyl-4-Piperidyl)Siba	82919-37-7	12	No	No
Fatty Acids, C9-13-Neo-,Cobalt Salts	689-83-9	12	No	No
Amino Polymer	162267-17-0	0	No	No
Amyl Acetate (Mixed Isomers)	628-63-7	57	No	No
Alkyd Resin, N.Os (Drying Oil)	--	8,581	No	No
	Total FHAP or TAC (TPY) =		3.21	5.17
	Max Individual FHAP (TPY) =		1.06	

Horizon Prestain
Emission Detail Sheets
VOC and HAP PTE Emissions

CAS number	Chemical Name	2018 HAPs (lbs/yr)	2018 VOC (lbs/yr)	PTE HAPs (lbs/yr)	PTE VOC (lbs/yr)
1330-20-7	Xylene	505.29	505.29	2128.05	2128.05
64-17-5	Ethanol		387.59		1632.35
526-73-8	1,2,3-Trimethylbenzene		0.00		0.00
95-63-6	1,2,4-Trimethylbenzene		28.77		121.17
108-67-8	1,3,5-Trimethylbenzene		0.00		0.00
67-56-1	Methanol	84.79	84.79	357.10	357.10
50-00-0	Formaldehyde	0.55	0.55	2.32	2.32
64742-82-1	Naptha (Petrolem), Hydrodesulfurized Heavy		2.94		12.37
64742-95-6	Solvent Naptha, Light Aromatic		55.45		233.53
8052-41-3	Mineral Spirits		732.56		3085.20
64742-88-7	Mineral Spirits		6297.73		26523.13
78-83-1	Isobutyl Alcohol		199.73		841.17
64742-48-9	Mineral Spirits		1.73		7.29
64741-41-9	Mineral Spirits		62.66		263.90
8032-32-4	Vm&P Naptha		34.96		147.24
104-15-4	4-Methyl-Benzenesulfonic Acid		3.50		14.73
111-76-2	Glycol Ether Monobutyl Ether		110.76		466.47
111-84-2	Nonane		9.04		38.07
100-41-4	Ethyl Benzene	211.19	211.19	889.43	889.43
64742-49-0	Naptha, Petroleum, Hydrotreated Light		16.37		68.92
64742-47-8	Light Aliphatic Hydrocarbon		266.88		1123.98
64742-52-5	Heavy Naphthenic Petroleum Oil		14.18		59.72
64742-58-1	Lubricating Oils, Petroleum, Hydrotreated Spent		14.88		62.67
96-29-7	Methyl Ethyl Ketoxime		2.51		10.57
98-82-8	Cumene		0.80		3.37
64741-65-7	Mineral Spirits		82.07		345.64
64742-89-8	Light Aliphatic Hydrocarbon Solvent		671.77		2829.19
8008-20-6	Supersene (Kerosene)		238.91		1006.18
78-93-3	Methyl Ethyl Ketone (Mek)		48.85		205.73
108-10-1	Methyl Isobutyl Ketone (Mibk)	262.40	262.40	1105.11	1105.11
123-86-4	N-Butyl Acetate		997.42		4200.67
108-65-6	1-Methoxy-2-Propanol Acetate		333.46		1404.38
71-36-3	1-Butanol		116.40		490.22
108-65-6	Heavy Naphthenic Petroleum Oil		243.74		1026.52
98-56-6	P-Chlorobenzotrifluoride		0.44		1.85
107-21-1	Ethylene Glycol	129.51	129.51	545.44	545.44
34590-94-8	Dipropylene Glycol Monomethyl Ether		51.70		217.72
96-29-7	2-Butanone Oxime		47.92		201.82
554-53-6	3-Iodo-2-Propynyl Butylcarbamate		0.59		2.47
136-52-7	Cobalt Bis(2-Ethylhexanoate)		113.51		478.05
117-81-7	Dioctyl Phthalate	16.57	16.57	69.79	69.79
110-43-0	Methyl Amyl Ketone		0.00		0.00
110-19-0	Isobutyl Acetate		13.77		57.99
141-78-6	Ethyl Acetate		18.72		78.84
97-85-8	Isobutyl Isoburyrate		13.77		57.99
108-88-3	Toluene	309.92	309.92	1305.24	1305.24
71-43-2	Benzene	0.01	0.01	0.04	0.04
91-20-3	Naphthalene	0.69	0.69	2.91	2.91
27253-31-2	Cobalt Neodenoate		0.10		0.43
2807-30-9	Ethylene Glycol Monopropyl Ether	1.72	1.72	7.24	7.24
22464-99-9	2-Ethylhexanoic Acid, Zirconium Salt		1.23		5.18
12001-85-3	Zinc Naphthenate		0.00		0.00
822-06-0	Hexamethylene Diisocyanate	0.05	0.05	0.20	0.20
55406-53-6	3-Iodo-2-Propynl Butyl Carbamate		0.47		1.98
100684-20-6	Fatty Acids, Tail-Oil, Maleated, Cmpds With Triethanolamine		0.10		0.43
68002-18-6	Isobutylated Urea-Formaldehye Polymer		0.00		0.00
67746-08-1	Linseed Oil		2067.42		8707.02
8002-05-9	Petroleum		1.68		7.08
41556-26-7	Bis(1,2,26,6-Pentamethyl-4-Piperidyl)Sibacate		2.91		12.25
82919-37-7	Methyl(1,2,26,6-Pentamethyl-4-Piperidyl)Sibacate		2.91		12.25
689-83-9	Fatty Acids, C9-13-Neo-,Cobalt Salts		2.91		12.25
162267-17-0	Amino Polymer		0.01		0.04
628-63-7	Amyl Acetate (Mixed Isomers)		13.62		57.37
--	Alkyd Resin, N.Os (Drying Oil)		2037.55		8581.22
	Total (lbs/yr) =	**1,523**	**16,890**	**6,413**	**71,131**
	Total (TPY) =	**0.76**	**8.44**	**3.21**	**35.6**

Note:
Potential VOC and HAP emissions are based on a scale up factor of 8760 hours/2080 hours.
2018 represents the highest usage year in the period of 2013 through 2023.
2018 coating usage was 4,322 gallons. Max usage scaled up is approximately 18,200 gallons.
Blue text indicates federal HAPs.

Horizon Prestain
Emission Detail Sheets
PM Emissions

Potential PM Emissions from Coating Operations:

Vendor	Largest Usage Products	Product Code	Density lb/gal	Solids wt%	Solids lb/gal	
Rodda	Lacquer Primer Surfacer	729751	9.84	51.0	5.0	
Rodda	Blk Lacquer Primer Surfacer	782001	9.20	44.0	4.0	
Rodda	Int. Gloss Satin Finish	523601	10.79	50.1	5.4	
Sherwin-Williams	Millwork Primer	E60WJ518	12.78	61.5	7.9	<= Worst Case
Sherwin-Williams	Precat Lacquer	T77F58	7.90	35.0	2.8	
Rudd Wood Finish	Duracat Precat Lacquer	651810	7.56	27.7	2.1	
Rudd Wood Finish	Clear Varnish	310661	7.67	30.8	2.4	
PPG Industries, Inc.	Cetol RE Natural Oak	365680	7.76	71.3	5.5	
PPG Industries, Inc.	Cetol SRD Cedar	412994	7.76	42.3	3.3	

PM PTE = Worst case solid content (PM) (lb/gal) x Maximum potential annual usage (gal/yr) x (1-Transfer Eff.) x (100% - Filter Eff.)/100) x 1 ton/2000 lbs

Worst case solid content =	7.9	lb solids/gal coating
Max potential usage =	18,200	gal coating/yr
Transfer efficiency =	60.00%	HVLP or similar
Filter efficiency =	98.00%	Permit Limit
PM PTE from Coating Operations =	0.58	TPY

Potential PM Emissions from Sanding Operations:

PM PTE = Maximum lbs sanderdust/hr x 8760 hrs max/yr x 1 BDT/2000 lbs x 0.04 lbs PM/PM_{10}/$PM_{2.5}$/BDT = lbs PM Max/yr

Worst case sanderdust production =	100	lbs/hr (estimated maximum hourly rate)
Emission factor =	0.04	lbs PM/BDT
PM PTE from Sanding Operations =	8.8E-03	TPY

Note:

PM PTE calculated based on the highest coating material volume/gallons used with highest solid content.
Actual operating hours for baghouse-controlled sanding operations are less than 10 hrs per month (~120 hrs/yr max).
Total baghouse operating hours = ~2,717 hrs since baghouse installation in 1996.
Baghouse emission factor from DEQ AQ-EF02.
Assumes PM/PM_{10}/$PM_{2.5}$ fractions are the same.