

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

Review Report

Horizon Prestain, Inc.
 41 North Danebo Avenue
 Eugene, OR 97402

Source Information:

SIC	2599 Furniture and Fixtures NEC
NAICS	337127

Source Categories (LRAPA Title 37, Table 1)	B:69. Surface coating operations > 250 gallons/mo
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

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

COMS	N
CEMS	N
Ambient monitoring	N

Reporting Requirements

Annual report (due date)	Mar 15
Emission fee report (due date)	Mar 15
SACC (due date)	N
Quarterly 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)	N
CAM	N
Regional Haze (RH)	N
Synthetic Minor (SM)	N
Part 68 Risk Management	N
Title V	N
ACDP (SIP)	N
Major HAP Source	N
Federal Major Source	N
New Source Review (NSR)	N
Prevention of Significant Deterioration (PSD)	N
Acid Rain	N
Cleaner Air Oregon (CAO)	N
TACT	N

REVIEW REPORT

Permitting

Permittee Identification:

1. Horizon Prestain Inc. is located at 41 North Danebo Avenue, Eugene, OR 97402

Permitting Action

2. The proposed permit is a renewal of an existing Simple Air Contaminant Discharge Permit (ACDP) that was issued on August 19, 2014 and was originally scheduled to expire on August 19, 2019. The facility operates a process listed in LRAPA Regulations Title 37, Table 1, Part B.69 – Surface coating operations whose actual or expected usage is greater than 250 gallons per month and is, therefore, required to have an ACDP. The primary reason for the permit action is to renew the expired permit. The permit is classified in the Simple “low” fee category (per LRAPA 37-0064(2)(a)(B)) because the facility’s actual VOC emissions are less than 10 tons/year. The Simple “low” ACDP fee category is applied due to the facility’s request to be permitted to use more than 250 gallons of VOC and HAP containing materials a month. The existing ACDP remains in effect until final action is taken on the renewal application (#64798, rec’d Feb. 4, 2019, updated) because the facility submitted a timely and complete application for renewal. The facility has requested renewal without any changes to their existing permit.

Attainment Status

3. The facility is located in an attainment area for NO₂ (nitrogen dioxide), Pb (lead), O₃ (lead), SO₂ (sulfur dioxide) and PM_{2.5} (particulate matter ≤ 2.5 micrometers (µm) in diameter), and the Eugene/Springfield Air Quality Maintenance Area for PM₁₀ (particulate matter ≤ 10 µm in diameter) and CO (carbon monoxide).
4. The facility is not located within 10 kilometers of Three Sisters Wilderness Class I Air Quality Protection Area and facility emissions are less than the significant emission rate (SER).

Source Description

Overview and General Background Information

5. Horizon Prestain, Inc. (also dba Horizon Painting) operates a surface coating and woodworking operation in Eugene, Oregon. 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, 4 spray guns (1 HVLP and 3 airless) and a baghouse which controls particulate emissions from sanding and woodworking operations. In the 2008 permit renewal, the facility requested allowance for three (3) paint booths and one drying room, but the third booth and drying room were never installed. (See NC-203534-A08) The current permit reflects the presence of only two (2) paint booths. The facility typically operates approximately 2,080 hours per year (8 hours per day, 5 days per week, and 52 weeks per year) but can operate a maximum of 2600 hours a year (10 hours per day, 5 days per week, and 52 weeks per year) based on seasonal and production variability (MLog#62999).
6. The facility’s original permit was issued as “Minimal” source permit (< 5 tons of PM and < 10 tons of VOC) on March 25, 2003 to Horizon Painting, Inc. which also did business as Willamette Valley Sandblasting. The facility’s name was changed from Horizon Painting, Inc to Horizon Prestain, Inc. with the 2008 permit renewal. The Permit Addendum No. 1 issued May 8, 2009 changed the facility’s permit from a Minimal ACDP to a Simple “Low” ACDP.

7. No changes have been made to the facility since the last permit renewal issued August 19, 2014.

Process Devices, Emission Units and Control Devices:

Devices and Processes Description	Device ID	Construction date	Pollution Control Device (PCD) Description	PCD ID	Construction date
Panel Coating Machine (1) (Stainer)	6F-SPCM	Pre 2001	None	NA	NA
Bleeker Bros. Spray Paint Booth #1	1A-SB1	Pre 2001	Paint Booth Filters 98.2% Eff.	NA	NA
Binks Spray Paint Booth #2	2B-SB2	Pre 2007	Paint Booth Filters 98.2% Eff.	NA	NA
Murphy Rodgers Baghouse for Sander	5E-BH	1996	Sander Baghouse	S5E-BH	1996

Compliance History

8. An inspection/review (PCADs #2373; Jan. 30, 2018) of the facility's 2017 Annual Report found the facility to be not in compliance with Condition 9: Monitoring and Reporting requirements for failure to calculate VOC emissions using a 12-month rolling total. The facility requested time to develop a database for reporting 12-month rolling emission totals from VOC and HAP containing materials used at the facility.
9. An inspection/review (PCADs #2551; Mar. 20, 2019) of the facility's 2018 Annual Report found the facility to be not in compliance with Condition 9: Monitoring and Reporting requirements due to failure to submit the annual report by March 15th (The facility requested additional time on March 15, 2019 due to outstanding SDS data; Annual Report rec'd Mar. 19, 2019) and for failure to calculate VOC emissions using 12-month rolling totals. An LRAPA inspector and permit writer met with facility's managers and consultant on April 2, 2019 (PCADs #2556) to explain requirements for calculating and reporting 12-month rolling emission totals from VOC and HAP containing materials used at the facility. The facility indicated they would provide 12-month rolling totals with the 2019 annual report. A revised 2018 Annual Report which included true 12-month rolling emissions totals was submitted to LRAPA on Sept. 13, 2019.
10. The facility was inspected on April 2, 2019 (PCADs # 2556) and found to be in compliance with recordkeeping requirements for tracking monthly product usage, product storage and spray-booth filter replacements.
11. During the prior permit period there were no complaints recorded for this facility. Two complaints were received in the past permit terms (Complaint #14815; rec'd Mar. 7, 2007 and #6381; rec'd July 8, 1999).
12. No enforcement actions have been taken against this facility since the last permit renewal.

Emissions

Plant Site Emission Limits (PSELs):

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

Annual Plant Site Emission Limits (PSELs)
 (tons per year)

Source	PM	PM ₁₀	PM _{2.5}	VOC	Single HAP	Combined HAPs
Totals (tons per year)	24	14	9	39	9	24

- a. The proposed PSELs for all pollutants that are emitted above the de minimis levels defined in LRAPA Title 12 are equal to the Generic PSEL in accordance with LRAPA 37-0064(3)(b) and the netting basis is zero in accordance with LRAPA 42-0040(2).
- b. PSELs for CO, NO_x, SO₂, and GHGs are not included in this permit because annual actual emissions of these pollutants are less than the respective de minimis levels defined in LRAPA Title 12.
14. **PSEL Monitoring:** The facility is required to determine compliance with the VOC and HAP PSELs by recording total monthly usage (in gallons) of VOC and HAP-containing materials and calculating new monthly VOC and HAP emission totals (based on mass balance using SDS/CPDS emission factors) and comparing the 12-month rolling VOC and HAP emission values with the annual VOC and HAP PSELs. LRAPA has determined that emission calculations are not necessary to ensure compliance with the PM, PM₁₀, and PM_{2.5} PSELs.
15. **2018 Actual Emissions and Emission Details:**
- a. The 2018 annual report received on March 19, 2019 (revised Sept. 13, 2019 w/true rolling 12-month totals) indicated the facility used a total of 4,170 gallons of VOC and/or HAP containing coatings with a monthly average usage of 348 gal/month in 2018.
- b. The 2018 actual annual total VOC emissions calculated using SDS and CPDS emission factors) was 8.44 tons VOC/2018. Because the facility's 2018 actual annual VOC emissions are close to the 10 ton/year VOC threshold for needing a Simple "high" permit, LRAPA may determine that the facility be invoiced at the Simple "High" in accordance with LRAPA 37-0064(2)(b) if future actual annual VOC emissions exceed the 10-ton VOC/year threshold. Future annual reports will be reviewed in detail to determine the facility's specific emission level.
- c. The 2018 actual annual total of combined HAP emissions (calculated using SDS and CPDS emission factors) was 0.76 tons/2018 and total highest single HAP (xylene) emissions was 0.25 tons xylene/2018.
- d. No information relating to the baghouse and/or PM emissions was provided in the annual report but it is assumed that the facility's emissions of PM are negligible.
- e. VOC and HAP emissions were calculated based on mass balances using SDS and/or CPDS emission factors as reported by coating manufacturers. Should the facility wish to increase production, the facility will have to apply for a permit modification, including a new assessment of fees.

16. PSEL information:

Pollutant	Baseline Emission Rate ^a (tons/yr)	Netting Basis ^b		Plant Site Emission Limit (PSEL)			Significant Emission Rate (tons/yr)
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL ^c (tons/yr)	Proposed PSEL ^d (tons/yr)	PSEL Increase over netting basis (tons/yr)	
PM	0	0	0	24	24	NA	25
PM ₁₀	0	0	0	14	14	NA	15
PM _{2.5}	NA	0	0	9	9	NA	10
CO	0	0	0	NA	NA	NA	100
NO _x	0	0	0	NA	NA	NA	40
SO ₂	0	0	0	NA	NA	NA	40
VOC	0	0	0	39	39	39	40
Individual HAP	NA	0	0	NA	9	9	NA
Aggregate HAPs	NA	0	0	NA	24	24	NA

- Baseline Emission Rate: The facility did not exist during the baseline period (1978). Baseline emissions are set at zero (0) tons per year for PM, PM₁₀, SO₂, NO_x, CO, and VOC. In accordance with LRAPA 42-0048(3), a baseline emission rate is not applicable to PM_{2.5} emissions. Also, because the facility has chosen to obtain a Simple ACDP, LRAPA 370064(3)(b) and 42-0040(1) specify that the baseline emissions are set at zero (0) tons per year for all pollutants.
- The Netting Basis is zero for Simple ACDPs in accordance with LRAPA 42-0040(2).
- The Previous PSELs are the PSELs set in the last permit renewal. HAP PSELs were not included in the previous permit but are established with the current renewal.
- The Proposed PSELs for all pollutants emitted by the facility are equal to the Generic PSEL in accordance with LRAPA 37-0064(3)(b). The regulated pollutants emitted from processes at this facility are volatile organic compounds (VOCs), particulate matter (PM), particulate matter less than 10 micrometers (µm) in diameter (PM₁₀), particulate matter less than 2.5 micrometers (µm) in diameter (PM_{2.5}) and hazardous air pollutants (HAPs).
- The PSEL is a federally enforceable limit on the potential to emit.

Significant Emission Rate Analysis

- For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the Significant Emission Rate (SER), thus no further air quality is required at this time.

Title V Major Source Applicability

- A source that has the potential to emit less than the major source thresholds (100 tons/year or more of any criteria pollutant or 10 tons/year or more of any single HAP or 25 tons/year or more of combined HAPs) is called a true minor. This facility is a true minor and not subject to Title V permitting requirements. The basis for this determination can be found in the PTE emission calculation detail sheets for VOCs, HAPs, and PM at the end of this review report.
- This facility is not a major source of criteria pollutant emissions as defined in LRAPA Title 12.

Hazardous Air Pollutants/Toxic Air Contaminants

20. Under the Cleaner Air Oregon (CAO) program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This facility has not been notified by LRAPA and is therefore, not 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 187 hazardous air pollutants are on the list of approximately 600 toxic air contaminants. The hazardous air pollutants and toxic air contaminants listed below were reported by the source in 2018 and verified by LRAPA. 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 toxics air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

21. The facility is a not a major source of hazardous air pollutants. The HAP emissions detail is provided at the end of this report. The facility does not, under current and past operating levels, have the potential to emit above major source thresholds for a single and/or combination of total HAPs. For calendar year 2018, the facility estimated to have emitted approximately 0.76 tons per year total HAPs. The facility is not subject to the requirements of 40 CFR 63 Subpart 6H because the coatings are spray-applied to only wood substrates (i.e., not metal or plastic substrates).

Hazardous Air Pollutant/Toxic Air Contaminants	Potential to Emit (pounds/year)
Xylene	2128.1
Methanol	357.1
Formaldehyde	2.3
Ethyl Benzene	889.4
Methyl Isobutyl Ketone (MIBK) (Hexone)	1105.1
Ethylene Glycol	545.4
Diocetyl Phthalate (Bis(2-ethylhexyl) phthalate (DEHP)	69.8
Toluene	1305.2
Benzene	0.04
Naphthalene	2.9
Ethylene Glycol Monopropyl Ether	7.2
Hexamethylene Diisocyanate	0.2
TOTAL	6412.9

Toxics Release Inventory

22. The Toxics Release Inventory (TRI) 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, the 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 each year. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority. The above information has been copied by LRAPA from EPA's TRI website; LRAPA does not guarantee the accuracy of this information.

23. Horizon Prestain, Inc. is not covered by the TRI Program because:

- It does not employ 10 or more full-time employees and
- It does not manufacture, process or use TRI-listed chemicals in quantities above threshold levels in a given year.

Additional Requirements

Emission Limitations

24. LRAPA's process weight rule limits emissions of PM for specific processes as a function of the amount of material processed. [LRAPA 32-045(1)] Since the facility is expected to emit minimal amounts of PM, the facility is expected to be in compliance with the process weight rule.
25. The facility is subject to visible emission (opacity) standard in LRAPA 32-010(3), the particulate grain loading standard in LRAPA 32-015(2)(b)(B) and the Highest and Best requirement of LRAPA 32-005. Operation of well-maintained paint booths with timely filter replacement along with regular maintenance of the sander baghouse should ensure compliance with the grain-loading and visible emission limits. The facility is also required to meet operational and work practice requirements for spray-applied coatings to ensure emissions are minimized to the greatest extent possible.

New Source Performance Standards (NSPSs)

26. There are no devices/processes at this facility for which NSPS standards have been promulgated.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

27. The facility is not subject to 40 CFR 63 Subpart QQQQ National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products because it is an area source/true minor and does not, under current or past operating levels, have the potential to emit (PTE) above the major source thresholds (potential to emit any single HAP at 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year). See PTE HAPs calculation detail sheet at the end of this review report

The facility is not subject to 40 CFR 63 Subpart JJ National Emission Standards for Wood Furniture Manufacturing Operations because it is an area source and is not located at a facility that is a major source.

The facility is not subject to 40 CFR 63 Subpart HHHHHH (6H) National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources because the facility spray-applies surface coatings to only wood substrates (i.e., not metal or wood substrates).

Greenhouse Gas (GHG) Reporting Applicability

28. The facility 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 facility ever emits more than this amount, they will be required to report greenhouse gas emissions.

Typically Achievable Control Technology (TACT) Applicability

29. LRAPA Title 32-008 requires that an existing emission unit at a source to meet TACT if the emissions unit meets the following criteria: the emissions of criteria pollutants are greater than five (5) tons per year of particulate or greater than ten (10) tons per year of any gaseous pollutant, the emissions unit is not subject to the emissions standards under LRAPA Title 30, Title

32, Title 33, Title 38, Title 39, or Title 46 for the pollutants emitted, and the source is required to have a permit. The facility does not currently emit more than 10 tons of VOC a year (The facility reported 8.6 tons of VOC emissions in 2018) and is not required to meet TACT for VOC. While the facility is not required to meet TACT at this time, LRAPA has determined that, use of airless or HPLV spray guns, cleaning of spray guns with cleaning solvents within a containment system and regular maintenance of spray booth containment systems (Spray Booths #1 and #2) including regular use and replacement of high-efficiency ($\geq 98\%$ removal efficiency) spray booth exhaust filters, would likely meet the TACT requirement.

New Source Review (NSR)

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

Source Testing

31. No performance testing has been completed by this facility. At this time performance testing is not necessary. The use of Safety Data Sheets (SDS) and/or Certified Product Data Sheets (CPDS) and other emission factors appear reasonable for use in estimating emissions from the facility.

Monitoring, Recordkeeping and Reporting Requirements

Monitoring and Recordkeeping

32. The facility is required to monitor and maintain records of the following information:

Activity	Parameter	Units	Recording Frequency
VOC/HAP-containing Material Usage ^a	Material Name and Usage	Total Gallons	Monthly
VOC/HAP-containing Material Usage ^a	Density of Material	Pounds per Gallon	Maintain current information at all times ^b
VOC-containing Material Usage ^a	VOC Content	% By Weight	Maintain current information at all times ^b
HAP-containing Material Usage ^a	Individual HAP Content	% By Weight	Maintain current information at all times ^b
Spray Booth Maintenance and Filter Replacement	Per Occurrence	NA	Upon occurrence and Filter Replacement

Activity	Parameter	Units	Recording Frequency
Sander Baghouse Maintenance	Per Occurrence	NA	As Performed

^a VOC/HAP containing materials include, but are not limited to, coatings, lacquers, thinners, stains, topcoats, solvents, gluing, cleaning, and wash-off materials.

^b The material density and VOC/HAP content information must be supplied from a Safety Data Sheet (SDS) or Certified Product Data Sheet (CPDS) provided by the manufacturer/supplier of the coatings or solvents.

Reporting Requirements

- 33. The facility is required to submit an annual summary report to document compliance with the VOC and HAP PSELS by March 15th each year. The summary report must contain documentation of VOC and HAP emissions corresponding to each 12-month rolling period calculated according to Permit Condition 12. The annual report must also document any new materials used at the facility, provide updated or new SDSs, CPDSs or emission factors as necessary, a summary of any complaints received by the facility during the year in accordance with Permit Condition 6 and a list of major maintenance performed on the pollution control devices.
- 34. The annual summary report must include the information as required per Condition G15 (excess emissions).

Public Notice

Public Notice Requirements:

- 35. Pursuant to LRAPA 37-0064(3)(a), issuance of Simple Air Contaminant Discharge Permits (ACDPs) require public notice in accordance with LRAPA 31-0030(3)(b), which requires LRAPA to provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. **The public notice was emailed/postmarked on September 19, 2019 and the comment period will end on October 18, 2019.**

The draft permit will be on public notice from September 19, 2019 to October 18, 2019 at 5:00 pm. Written comments may be submitted during the 30-day comment period. If requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals, there will be a public hearing following the comment period.

After the comment period and hearing (if requested), LRAPA will respond to comments received and then take final action to issue or deny within 45 days of the close of the public comment or hearing period.

Comments Received During the Public Notice Period:

- 36. There were <#> comments from the public during the comment period.
- 37. LRAPA issued the permit on <date>.

*Horizon Prestain Potential VOC and HAP Emissions and 2018 Actual HAP and VOC Emissions Summary				Normal Operating Hours: 8 hrs/day*5 day/wk*52 wks/yr = 2080 hrs/2018		Maximum Operating Hours: 24 hrs/day*365day/yr = 8760 hrs/Max potential	
CAS number	Chemical Name	2018 HAPs (lbs/yr)	2018 VOC (lbs/yr)	Max PTE HAPs (lbs/yr)	Max PTE VOC (lbs/yr)		
1330-20-7	XYLENE	505.29	505.29	2128.05	2128.05		
1333-86-4	CARBON BLACK		0.00		0.00		
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	NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY		2.94		12.37		
64742-95-6	SOLVENT NAPHTHA, 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	ISOBUTYLALCOHOL		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 / 68410-9	VM&P NAPHTHA		34.96		147.24		
104-15-4	4-METHYL-BENZENESULFONIC ACID		3.50		14.73		
111-76-2	GLYCOL ETHER MONOBUTYL ETHER / 2-BUTOXYETHANOL		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	NAPHTHA, 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 BUTYL CARBAMATE		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 ISOBURATE		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-PROPYNYL 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-FORMALDEHYDE POLYMER		0.00		0.00		
67746-08-1 / 8001-2	LINSEED OIL		2067.42		8707.02		
8002-05-9	PETROLEUM		1.68		7.08		
41556-26-7	BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL)SIBACATE		2.91		12.25		
82919-37-7	METHYL(1,2,2,6,6-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		
Blue text indicates HAPs		Total Lbs	1522.69	16889.66	6412.86	71131.46	
		Total Tons	0.76	8.44	3.21	35.57	
		Total Gallons	4322		Estimated Max Usage		
		VOC/HAP-containing materials:	gallons/2018 Annual Report		@8760hrs/yr = 18,200 gallons/Max		

*The Potential to Emit (PTE) for VOC and HAP emissions for Horizon Prestain was calculated by multiplying the reported 2018 HAP/VOC emissions by the ratio of the maximum annual operating hours per year (24 hrs/day*365 days/yr = 8760 hrs/yr max) to the normal operating hours per year (8 hrs/day* 5 days/week*52 wks/yr = 2080 hrs/2018). [Lbs HAP/VOC * 8760/2080 = Maximum PTE Lbs HAP/VOC] The total usage (gallons) of HAP/VOC-containing materials was also estimated using the Max hours/year/Normal hours/year ratio. The 2018 HAP/VOC emissions and gallon usage were used because they are the highest values reported by the facility since they began reporting to LRAPA in 2013.

PTE for VOC = 71,131.5 lbs VOC/yr x 1 ton/2000 lbs = 35.6 tons VOC/yr
 PTE for Individual HAP (xylene) = 2128.1 lbs xylene/yr x 1 ton/2000 lbs = 1.06 tons xylene/yr
 PTE for Combined HAPs = 6412.9 lbs HAPs/yr x 1 ton/2000 lbs = 3.21 tons HAPs/yr

Potential PM Emissions:					
PM from Coating Materials:					
Vendor*	Description	Product Code	Density lb/gal	Solids	
				wt%	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
*Horizon reported over 60 vendor products used in 2018: PM PTE calculated based on the highest coating material volume/gallons used with highest solid content.					
Potential PM Emissions from Coating Operations:					
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=	7.8 lb/gal (see above)			
	Max potential usage=	18,200 gal max/yr (see estimate based on max VOC/HAP PTE)			
	Transfer Efficiency =	60 % (based on minimum transfer eff. for HVLP application)			
	Filter Efficiency =	98.2 % (based on API Filter MFG Eff.)			
PM PTE from Coating Operations = 7.9 lb PM/gal x 18,200 gal/yr x (1-0.60) x (100% - 98.2%)/100 x 1 ton/2000 lbs = 0.52 tons PM/yr					
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 prod.	100 lbs/hr (estimated maximum hourly rate)			
	Sanding Operation w/baghouse	0.04 lbs PM/BDT (DEQ AQ-EF02 Emission Factor for Baghouse control)			
		** Assumes PM/PM ₁₀ /PM _{2.5} fractions are the same			
PM/PM₁₀/PM_{2.5} PTE = 100 lbs sanderdust/hr x 8760 hrs/yr x 1 BDT sanderdust/2000 lbs x 0.04 lbs PM/BDT** = 17.5 lbs PM/yr					
NOTE: 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.					

Facility PTE Emissions Summary:										
EU ID	Emission Device/Unit Description	PM (TPY)	PM ₁₀ (TPY)	PM _{2.5} (TPY)	SO ₂ (TPY)	NO _x (TPY)	CO (TPY)	VOC (TPY)	Individual HAP (TPY)	Combined HAPs (TPY)
SB1 & SB2	Spray Booth #1 & 2 Combined	0.52	0.52	0.52	NA	NA	NA	35.6	1.06	3.21
5E-BH	Baghouse-Controlled Sanding Operations	0.01	0.01	0.01	NA	NA	NA	NA	NA	NA
	PSEL=	24	14	9	NA	NA	NA	39	9	24