



**LANE REGIONAL AIR PROTECTION AGENCY**

1010 Main Street, Springfield, Oregon 97477

(541) 736-1056

**REVIEW REPORT**

**The Willamette Valley Company LLC**

586/660 McKinley Street

Eugene, Oregon 97402

<http://www.wilvaco.com/>

**Permit No. 208935**

**Source Information:**

SIC	2851– Paints, Varnishes, Lacquers, Enamels, and Allied Products
NAICS	325510 – Paint and Coating Manufacturing

Source Categories (LRAPA Title 37, Table 1)	B. 51 – Organic or inorganic chemical manufacturing and distribution with ½ or more tons per year emissions of any one criteria pollutant
Public Notice Category	III

**Compliance and Emissions Monitoring Requirements:**

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

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

**Reporting Requirements:**

Annual report (due date)	February 15
NSPS Report (due date)	NA
Monthly report (due dates)	NA

Excess emissions report	Y
Other reports	NA

**Air Programs:**

NSPS (list subparts)	A, IIII
NESHAP (list subparts)	ZZZZ
CAM	NA
Regional Haze (RH)	NA
Synthetic Minor (SM)	NA
SM-80	NA
Part 68 Risk Management	NA
Title V	NA
ACDP (SIP)	NA
Major HAP source	NA
Federal major source	NA
New Source Review (NSR)	NA
Prevention of Significant Deterioration (PSD)	NA

Acid Rain	NA
Clean Air Mercury Rule (CAMR)	NA
TACT	NA
>20 Megawatts	NA
Cleaner Air Oregon (CAO)	Y

### Permittee Identification

1. The Willamette Valley Company LLC (“the facility”) is wood filler, putty, and coating production facility at 586 and 660 McKinley Street in Eugene, Oregon.

### General Background Information

2. The facility manufactures seven primary categories of finished products for the wood-products industry: coating, putty, polyurethane filling, patching resin, spikefast resin, plywood patching resin, and epoxies. Each of the finished products undergoes the same general manufacturing process steps. First, liquid-based raw materials are combined into one or more mixing vessels where they are blended in specific amounts based on client needs. Some product formulations introduce dry raw ingredients, such as pigments, into the mixing vessel to be blended. For the final step, the finished product is filled into totes prior to being shipped offsite to the purchaser. The air contaminant emissions from this operation are primarily VOC. The facility operates 2,210 hours per year (8.5 hours per day, 5 days per week, 52 weeks per year).

### Reasons for Permit Action and Fee Basis

3. This permit action is a renewal for an existing Simple Air Contaminant Discharge Permit (Simple ACDP) which was issued on March 2, 2017 and was scheduled to expire on March 2, 2022. The facility indicated in their 2021 renewal application that they were requesting a renewal of an existing permit with changes. Because the actual emissions from calendar year 2021 were less than 10 tons/year for VOCs, the permit action is considered a Simple “low” ACDP renewal under LRAPA 37-0064(2)(a).
4. The Willamette Valley Company LLC was called into the Cleaner Air Oregon (CAO) program as an existing facility on March 2, 2020. This permit action includes conditions that will be utilized to demonstrate continuous compliance with the level of risk determined in the Risk Assessment approved by LRAPA on June 1, 2022.

### Attainment Status

5. The facility is located inside the Eugene Springfield Air Quality Management Area. The facility is located in an area that has been designated an attainment area of PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, Ozone, and Pb and a maintenance area for CO and PM<sub>10</sub>.

### Permitting History

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

Date(s) Approved/Valid	Permit Action Type	Description
06/10/2004-06/9/2009	Minimal ACDP	Initial air permit
05/11/2009	Administrative Amendment	Permit type and fee basis changed to Simple ACDP
09/02/2010-09/03/2015	Simple ACDP	Renewal of Simple ACDP
03/02/2017-03/02/2022	Simple ACDP	Renewal of Simple ACDP
11/07/2017	Administrative Amendment	Company and name change from “Willamette Valley Co.” to “The Willamette Valley Company LLC.”

Date(s) Approved/Valid	Permit Action Type	Description
06/10/2021	Non-PSD/NSR Basic Technical Permit Modification	Addition of one (1) dust collector (EU #28) to Zone 3 of the manufacturing building

Compliance History

- Notice of Non-Compliance No. 3715 was issued on May 29, 2018, for failing to meet the requirements of several permit conditions relating to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart CCCCCC. The facility did not conduct the initial particulate control device inspection and visible emissions test in accordance with Condition 13 of the permit. The annual compliance certification report required by Condition 16 had not been submitted to LRAPA. The required records detailed in Condition 17 were also not maintained and the Inspection and Maintenance (I&M) Plan required by Condition 25 was not submitted to LRAPA within 60 days of permit issuance. The Notice of Non-Compliance was signed by the facility on June 13, 2018, and all documents detailing the permit deviations and the facility's planned corrective actions were received on June 19, 2018. No further enforcement action was taken, and the case was closed.

Source Testing

- The facility is not required to conduct source testing at this time. Safety Data Sheets (SDS), Certified Product Data Sheets (CPDS), and material usage are used to determine the facility's emissions.

Emission Unit Descriptions

- A map of the emission units and their corresponding zones within the facility is attached to this review report. The emission units regulated by the permit are the following:

EU #	Emission Unit Description	Location	
1	Dust Collector 1	Zone 4 – Adjacent to Calcium Carbonate Silo	
2	Dust Collector 2	Zone 2 – Putty Deck	
28	Dust Collector 3	Zone 3 – Primer Paint Mixing Area	
EU #	Emission Unit Description	Location	Emission Control Device
3	PMDI Pump	Zone 1	None
4	PMDI Tank and Inlet Valve	Zone 4	None
5	Railway PMDI Inlet Valve	Zone 4	None
6	Mixing Vat – Waterbase	Zone 1	EU #28
7 – 8	Mixing Vat – Liquid Only	Zone 1	None

EU #	Emission Unit Description	Location	Emission Control Device
9	Mixing Vat – Waterbase	Zone 1	EU #28
10 – 12	Mixing Vat – Waterbase	Zone 2	EU #2
13	Storage Tank	Zone 2	None
14	Storage Tank	Zone 3	None
15 – 18	Mixing Vats – Primer Paint	Zone 3	EU #28
19 – 22	Mixing Vats – Epoxy	Zone 5	EU #1
23 – 24	Mixing Vats – Premix	Zone 6	EU #1
25	Recycled Glass	Zone 6	EU #1
26	Sand Mixing	Zone 6	None
27	Emergency Generator – Generac, 150 kW, oil-fired		None

Plant Site Emission Limits (PSELs) Information

10. The emissions for the facility are based on the generic PSEL level of 39 tons per year of VOC, 9 tons per year of any single HAP and 24 tons per year for combined HAPs according to LRAPA 42-0040.

**Annual PSEL**

Pollutant	Plant Site Emission Limit (tons/year)
VOC	39
Single HAP	9
Total HAP	24

Baseline Emission Rate (BER) and Significant Emission Rate (SER) Comparison

11. The BER has been set at zero (0) tons per year for all pollutants since this source was not in operation during the 1978 baseline year and because it has not obtained a Standard ACDP. Additionally, the BER for GHG was not established because the facility did not utilize any fuel burning sources during the GHG baseline period (2000-2010).

Cleaner Air Oregon

12. This facility primarily emits volatile organic Toxic Air Contaminants (TACs) from their mixing and blending operations, with formaldehyde emissions as their primary risk driver. The Willamette Valley Company LLC conducted a Level 1 Risk Assessment to determine cancer and noncancer risk levels from the Toxic Air Contaminant (TAC) emissions from operations at the facility. Both annual and short-term (24-hour) activities were used to estimate TAC emission rates, and air

concentrations were calculated using the dispersion factors available in OAR 340-245-8010 Table 3. Cancer and noncancer risk levels were determined based on the distance to the closest residential, worker, child, and acute exposure locations. The emission rate inputs for the Level 1 Risk Assessment are detailed in the attachment to this Review Report. The results of the Level 1 Risk Assessment for this facility can be found on the facility's [CAO webpage](#) and are summarized below:

Risk Type	Facility Risk	Risk Assessment Results
<b>Cancer Risk – Added cancer risk per million with 70 years of exposure</b>		
Residential (e.g., homes near facility)	2.3	Facility Risk is below the Source Permit Level of 5
Non-Residential Child (e.g., school near facility)	<0.1	
Non-Residential Worker (e.g., office near facility)	2.9	
<b>Noncancer Risk – Hazard Index (less than or equal to 1 is considered safe)</b>		
Annual Exposure – Residential	0.1	Facility Risk is below the Source Permit Level of 0.5
Annual Exposure – Non-Residential Child	<0.1	
Annual Exposure – Non-Residential Worker	0.3	
Acute 24-Hour Exposure	0.8	Facility Risk is above the Source Permit Level of 0.5 and below the Community Engagement Level of 1

- To ensure risk from this facility does not exceed the levels demonstrated in the risk assessment, the facility must notify LRAPA prior to using certain new product formulations containing any TACs that were not included in the risk assessment. The facility must calculate the additional risk from these new product formulations and demonstrate that the facility risk will not exceed the risk levels shown above.

#### Toxics Release Inventory

- 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.
- The Willamette Valley Company LLC is within the scope of the TRI program and reported the release of the following TRI-listed chemical for the year 2020: 65 pounds of diisocyanates (TRI ID N120).

### Emission Limits

17. The facility is subject to the visible emission limitations under LRAPA 32-010(3). Emission units subject to this requirement may not have visible emissions equal to or greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour.
18. The facility is subject to particulate matter emission limitations under LRAPA 32-015(2)(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.
19. The facility is subject to particulate matter emission limitations under LRAPA 32-015(2)(c). For sources installed, constructed or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot.
20. The facility is subject to the process weight rate emission limitation under LRAPA 32-045. Particulate matter emissions in any one hour may not exceed the amount shown in LRAPA 32-8010 for the process weight allocated to the process.
21. Under LRAPA 32-007 the facility is required to record all inspections and maintenance of emissions units and air pollution control equipment through the use of an LRAPA-approved Inspection and Maintenance (I&M) plan.

### Typically Achievable Control Technology (TACT)

22. LRAPA Section 32-008 requires that an existing emission unit at a source 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 per year and is not required to meet TACT for VOC. The facility reported 1.47 tons of VOC emissions in 2021.

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

23. This facility is not a federal major source because the proposed PSEs for all regulated pollutants are below the applicable federal major source threshold of 100 TPY. The PSEL of 39 tons VOC per year is below the 40 ton per year significant emission rate (SER) as established in LRAPA title 12. The reported VOC emissions for the facility from the 2021 calendar year are 1.47 tons/year.

### New Source Performance Standards (NSPS)

24. The emergency generator is subject to the requirements of 40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which details requirements for the operation and maintenance of emergency generators. Although there is no time limit for the operation of an emergency stationary internal combustion engine in emergency situations, the operation to perform maintenance and testing is limited to 100 hours per year.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

25. This facility is not a major source of hazardous air pollutants (HAP). The facility currently has PSEs for federal HAPs that limit emissions to no more than 9 tons per year for an individual federal HAP and 24 tons per year for the aggregate of all federal HAP and is a minor or area source of federal HAPs. The combined total reported by the facility for all federal HAPs in 2021 was 0.56 tons/year.
26. 40 CFR 63, Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Area Sources: Paints and Allied Products Manufacturing was applicable to this facility in the last permit cycle due to the usage of chromium and benzene containing compounds. In the permit renewal application received on November 2, 2021, the facility indicated they no longer process, use, or generate materials that contain the HAP identified in the subpart (benzene, methylene chloride, cadmium, chromium, lead and/or nickel). In accordance with 40 CFR 63.11599(d), an affected source is no longer subject to the subpart if the facility no longer processes, uses, or generates materials containing HAP and does not plan to process, use, or generate materials containing HAP in the future. Therefore, the requirements of Subpart CCCCCC have been removed from the permit. To ensure compliance with the NESHAP, the facility requested that a condition be added to the permit to prohibit the use of materials containing benzene, methylene chloride, cadmium, chromium, lead and/or nickel
27. 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines is applicable to this facility. The emergency generator was installed on or after June 12, 2006 and is considered a new stationary reciprocating internal combustion engine (RICE). Under 40 CFR 63.6590(c)(1), a new or reconstructed stationary RICE located at an area source of HAPs must meet the requirements of 40 CFR 63 subpart ZZZZ by meeting the requirements of 40 CFR 60 subpart IIII. No further requirements apply for such engines under 40 CFR 63 subpart ZZZZ.

Recordkeeping

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

Activity	Parameter	Units	Recording Frequency
VOC/HAP-containing Material Production	Material Production	Gallons or Pounds	Monthly
	VOC Content	% By Weight	Maintain current information at all times
	HAP Content	% By Weight	Maintain current information at all times
Cleaner Air Oregon – Source Risk Compliance	New Formulations	Calculated Risk	As implemented
	Any zoning changes within 1.5 kilometers of the source	Potential Increased Risk	Annually

Activity	Parameter	Units	Recording Frequency
Inspection and Maintenance (I&M) Plan Activities and Parameters	Occurrence	--	As Specified in I&M Plan
Emergency Generator (EU-27)	Hours of Operation	Hours	As performed
	Reason for Operation	--	As performed

29. The facility is required to keep records of the amount and types of VOC- and HAP-containing materials used, the VOC and HAP compositions of each material, and calculations of VOC and HAP emissions.
30. Records of the operation of the emergency generator in emergency and non-emergency service must be maintained and recorded through a non-resettable hour meter.
31. The facility is required to record all inspections and maintenance of emissions units and air pollution control equipment through the use of an LRAPA-approved Inspection and Maintenance (I&M) plan. The plan will be required to specify items such as: proper dust collector inspections and filter replacements, maintaining closed containers when not in use, proper minimization and clean-up of any spillage, and inspection and maintenance.

Reporting Requirements

32. For each year this permit is in effect, the permittee must submit to LRAPA by February 15<sup>th</sup> an annual report that includes the information required per Conditions 5 and 29 of the permit. The report must also document any new VOC/HAP-containing raw materials used by the facility, provide updated or new SDS or Certified Product Data Sheet, and provide the CAO new product formulation risk calculations required per Condition 19 of the permit, as necessary.

Public Notice

33. The draft permit will be on public notice from August 19, 2022 to September 22, 2022. Although LRAPA title 37 prescribes a Category II public notice for the renewal of a Simple ACDP, OAR 340-245-0100(4)(e)(A) of the Cleaner Air Oregon program allows for enhanced public notice procedures at the discretion of the Agency. Due to the facility's recent completion of a Level 1 Risk Assessment under the Cleaner Air Oregon program, LRAPA has determined that a Category III public notice in accordance with LRAPA tile 31 is appropriate. Written comments may be submitted during the 35-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 the permit within 45 days of the close of the public comment period or hearing period.



Plant Site Emission Limit (PSEL) Calculation Summary

**2020 Emissions Calculations for PSEL Compliance**

Pollutant	Amount Used (lb/yr)	Emission Factor (lb/lb)	Emissions	
			lb/yr	ton/yr
1,2,4-Trimethylbenzene	65.3	0.015	0.98	4.90E-04
1,3,5-Trimethylbenzene	6.84	0.015	0.10	5.13E-05
1,4-Dioxane*	1.3E-05	0.015	2.0E-07	1.00E-10
4,4'-Isopropylidenediphenol	2,154	0.015	32.3	1.62E-02
Acetaldehyde*	0.22	0.015	0.003	1.64E-06
Acrylamide*	0.36	0.015	0.005	2.69E-06
Acrylic acid*	7.46	0.015	0.11	5.59E-05
Acrylonitrile	0.01	0.015	1.4E-04	7.12E-08
Ammonia	300.7	0.015	4.51	2.26E-03
Benzene*	23.6	0.015	0.35	1.77E-04
Butyl benzyl phthalate	120	0.015	1.80	9.00E-04
Chlorothalonil	2,016	0.015	30.2	1.51E-02
Dibutyl phthalate*	0.69	0.015	0.01	5.21E-06
Diethanolamine*	156	0.015	2.35	1.17E-03
Diethylene glycol	76,356	0.015	1145	5.73E-01
Diethylene glycol monobutyl ether*	5,178	0.015	77.7	3.88E-02
Diethylene glycol monomethyl ether*	57.7	0.015	0.87	4.33E-04
Dipropylene glycol	236	0.015	3.54	1.77E-03
Dipropylene glycol monomethyl ether	985	0.015	14.78	7.39E-03
Ethylene glycol*	1,085	0.015	16.27	8.13E-03
Ethylene glycol monobutyl ether	11,578	0.015	174	8.68E-02
Ethylene oxide*	2.2E-04	0.015	3.3E-06	1.65E-09
Formaldehyde*	17.60	0.015	0.26	1.32E-04
Glycol ethers (Diethylene glycol monobutyl ether)	220	0.015	3.31	1.65E-03
Hexachlorobenzene*	0.02	0.015	3.3E-04	1.66E-07
Hexamethylene-1,6-diisocyanate	3.07	0.015	0.05	2.30E-05
Isopropyl alcohol	1,582	0.015	23.7	1.19E-02
Maleic anhydride*	27.1	0.015	0.41	2.03E-04
Methanol*	255	0.015	3.82	1.91E-03
Methyl isobutyl ketone*	0.14	0.015	2.2E-03	1.08E-06
Naphthalene*	9.11	0.015	0.14	6.84E-05
Propylene glycol monomethyl ether	45,035	0.015	676	3.38E-01
Sodium hydroxide	56.2	0.015	0.84	4.22E-04
Styrene*	0.12	0.015	1.7E-03	8.70E-07
Vinyl acetate*	2.18	0.015	0.03	1.64E-05
Vinylidene chloride*	0.01	0.015	1.7E-04	8.52E-08
Xylene (mixture including m-xylene, o-xylene, p-xylene)*	0.10	0.015	1.4E-03	7.21E-07
<i>MDI Emissions</i>				
4,4'-methylenediphenyl diisocyanate*	19,209	0.0015	28.8	1.44E-02
Methylene diphenyl diisocyanate (MDI)*	307,347	0.0015	461	2.31E-01
Toluene diisocyanates (2,4- and 2,6-)*	311	0.0015	0.47	2.33E-04
Toluene-2,4-diisocyanate*	3,727	0.0015	5.6	2.80E-03
Toluene-2,6-diisocyanate*	1,242	0.0015	1.9	9.32E-04
			<b>lb/yr</b>	<b>ton/yr</b>
*Indicates a federally listed HAP		<b>Total VOC</b>	<b>2771</b>	<b>1.36</b>
		<b>Total HAP</b>	<b>600</b>	<b>0.30</b>

Plant Site Emission Limit Calculation Summary (continued)

**Maximum Product Throughput and PM Calculations**

Emission Factors	Value	Units	Source
PM Emission Rate	0.04	lb/ton	DEQ AQ-EF02 Estimated – Sanderdust Baghouse Emissions
PM <sub>10</sub> Portion	99.5	%	DEQ AQ-EF03 Baghouse Emissions
PM <sub>2.5</sub> Portion	99.0	%	DEQ AQ-EF03 Baghouse Emissions

Product Throughput <sup>1</sup>		PM Emissions <sup>2</sup>	PM <sub>10</sub> Emissions <sup>2</sup>	PM <sub>2.5</sub> Emissions <sup>2</sup>
lbs/yr	tons/yr	tons/yr	tons/yr	tons/yr
28,423,213	14,211	0.28	0.28	0.28

<sup>1</sup>NOTE: Maximum product throughput value provided by the facility.

<sup>2</sup>NOTE: Emissions are under the de minimis value of 1 ton per year. No PSEs for particulate matter (PM), PM<sub>10</sub> or PM<sub>2.5</sub> are required.

Plant Site Emission Limit Calculation Summary (continued)

**Emergency Generator Potential to Emit**

<b>Number of Generators</b>	1
<b>Make</b>	Generac
<b>Model</b>	7.5DMTA
<b>Build Date</b>	2005
<b>Maximum Engine Power<sup>1</sup></b>	150 kW
	201 HP
<b>Displacement</b>	7.5 liters

<b>Maximum Gallons/hr</b>	12
<b>Maximum Hours Operated</b>	100

<b>Generator Emissions Estimate<sup>2</sup></b>		
NO <sub>x</sub> emissions	0.36	tons/100 hours
CO emissions	0.08	tons/100 hours
VOC emissions	0.03	tons/100 hours
PM emissions	0.03	tons/100 hours
PM <sub>10</sub> emissions	0.03	tons/100 hours
PM <sub>2.5</sub> emissions	0.03	tons/100 hours
SO <sub>2</sub> emissions	0.02	tons/100 hours

<sup>1</sup>NOTE: The aggregate horsepower rating of the emergency generator is less than 3000 HP, meeting the definition of a “categorically insignificant activity” in LRAPA Title 12.

<sup>2</sup>NOTE: The estimated emissions of all regulated pollutants do not exceed the de minimis level, based on the expected maximum annual operation of the emergency generator.

**Emergency Generator Emission Factors – ODEQ AQ-EF07**

<b>Pollutant</b>	<b>Distillate Oil Emission Factor (lb/1000 gallons)</b>
PM	42.5
PM <sub>10</sub>	42.5
PM <sub>2.5</sub>	42.5
NO <sub>x</sub>	604
CO	130
VOC	49.3
SO <sub>2</sub>	39.7

Cleaner Air Oregon Level 1 Risk Assessment – TAC Emission Rate Inputs

TEU Identifier	TAC	CAS Number	Annual Emissions	Daily Max Emissions
			lb/yr	lb/day
BUILDING1	Methylene diphenyl diisocyanate (MDI)	101-68-8	2.4E-04	1.7E-05
BUILDING1	Formaldehyde	50-00-0	1,688	9.32
BUILDING1	Methanol	67-56-1	13.8	9.6E-02
BUILDING1	Benzene	71-43-2	3.32	2.2E-02
BUILDING1	Acrylic acid	79-10-7	1.24	8.1E-03
BUILDING1	Cobalt and compounds	7440-48-4	32.8	--
BUILDING1	Silica, crystalline (respirable)	7631-86-9	41.5	--
BUILDING1	Propylene glycol monomethyl ether	107-98-2	438	3.41
BUILDING1	Ethylene glycol monobutyl ether	111-76-2	38.6	1.4E-03
BUILDING1	Diethylene glycol monobutyl ether	112-34-5	1.3E-02	--
BUILDING2-STK	Toluene diisocyanates (2,4- and 2,6-)	26471-62-5	6.0E-03	--
BUILDING2-STK	Hexamethylene-1,6-diisocyanate	822-06-0	0.36	3.1E-03
BUILDING2-STK	Acrylonitrile	107-13-1	0.84	5.4E-03
BUILDING2-STK	Ethyl benzene	100-41-4	8.17	6.1E-02
BUILDING2-STK	Acetone	67-64-1	--	166
BUILDING2-STK	Vinylidene chloride	75-35-4	4.79	2.8E-02
BUILDING2-STK	Xylene (mixture), including m-xylene, o-xylene, p-xylene	1330-20-7	18.5	0.14
BUILDING2-STK	Isopropylbenzene (Cumene)	98-82-8	0.27	2.1E-03
BUILDING2-STK	Aluminum and compounds	7429-90-5	49.2	--
BUILDING2-STK	Silica, crystalline (respirable)	7631-86-9	75.1	1.6E-03
BUILDING2-STK	Ammonia	7664-41-7	--	--
BUILDING2-STK	Propylene glycol monomethyl ether	107-98-2	0.31	--
BUILDING2-FUG	Aluminum and compounds	7429-90-5	--	16.6
BUILDING2-FUG	Silica, crystalline (respirable)	7631-86-9	5.46	--
MDI_BULK	Methylene diphenyl diisocyanate (MDI)	101-68-8	3.3E-04	1.8E-05
RESIN_BULK	Styrene	100-42-5	4.6E-03	4.0E-04
MDI_RAIL	Methylene diphenyl diisocyanate (MDI)	101-68-8	2.4E-03	1.2E-04
EGEN	Formaldehyde	50-00-0	1.04	8.3E-02
EGEN	Benzene	71-43-2	0.11	8.9E-03
EGEN	Ethyl benzene	100-41-4	6.5E-03	5.2E-04
EGEN	Toluene	108-88-3	6.3E-02	5.1E-03
EGEN	Acrolein	107-02-8	2.0E-02	1.6E-03
EGEN	Acetaldehyde	75-07-0	0.47	3.8E-02
EGEN	1,3-Butadiene	106-99-0	0.13	1.0E-02
EGEN	Hexane	110-54-3	1.6E-02	1.3E-03
EGEN	Xylene (mixture), including m-xylene, o-xylene, p-xylene	1330-20-7	2.5E-02	2.0E-03
EGEN	Diesel Particulate Matter	200	3.41	0.27
EGEN	Arsenic and compounds	7440-38-2	9.6E-04	7.7E-05
EGEN	Cadmium and compounds	7440-43-9	9.0E-04	7.2E-05
EGEN	Chromium VI, chromate, and dichromate particulate	18540-29-9	6.0E-05	4.8E-06
EGEN	Copper and compounds	7440-50-8	2.5E-03	2.0E-04
EGEN	Lead and compounds	7439-92-1	5.0E-03	1.5E-04
EGEN	Manganese and compounds	7439-96-5	1.9E-03	1.5E-04
EGEN	Mercury and compounds	7439-97-6	1.2E-03	9.6E-05
EGEN	Selenium and compounds	7782-49-2	1.3E-03	1.1E-04
EGEN	Ammonia	7664-41-7	1.74	0.17
EGEN	Hydrochloric acid	7647-01-0	0.11	8.9E-03
EGEN	Polycyclic aromatic hydrocarbons (PAHs)	401	2.2E-02	1.7E-03
EGEN	Benzo[a]pyrene	50-32-8	2.1E-08	1.7E-09
EGEN	Naphthalene	91-20-3	1.2E-02	9.5E-04

TEU	Associated Facility Zone	TEU	Associated Facility Zone
BUILDING1	Zones 1, 2, and 3	RESIN_BULK	Zone 4
BUILDING2	Zones 5 and 6	MDI_RAIL	Zone 4
MDI_BULK	Zone 4	EGEN	Zone 4

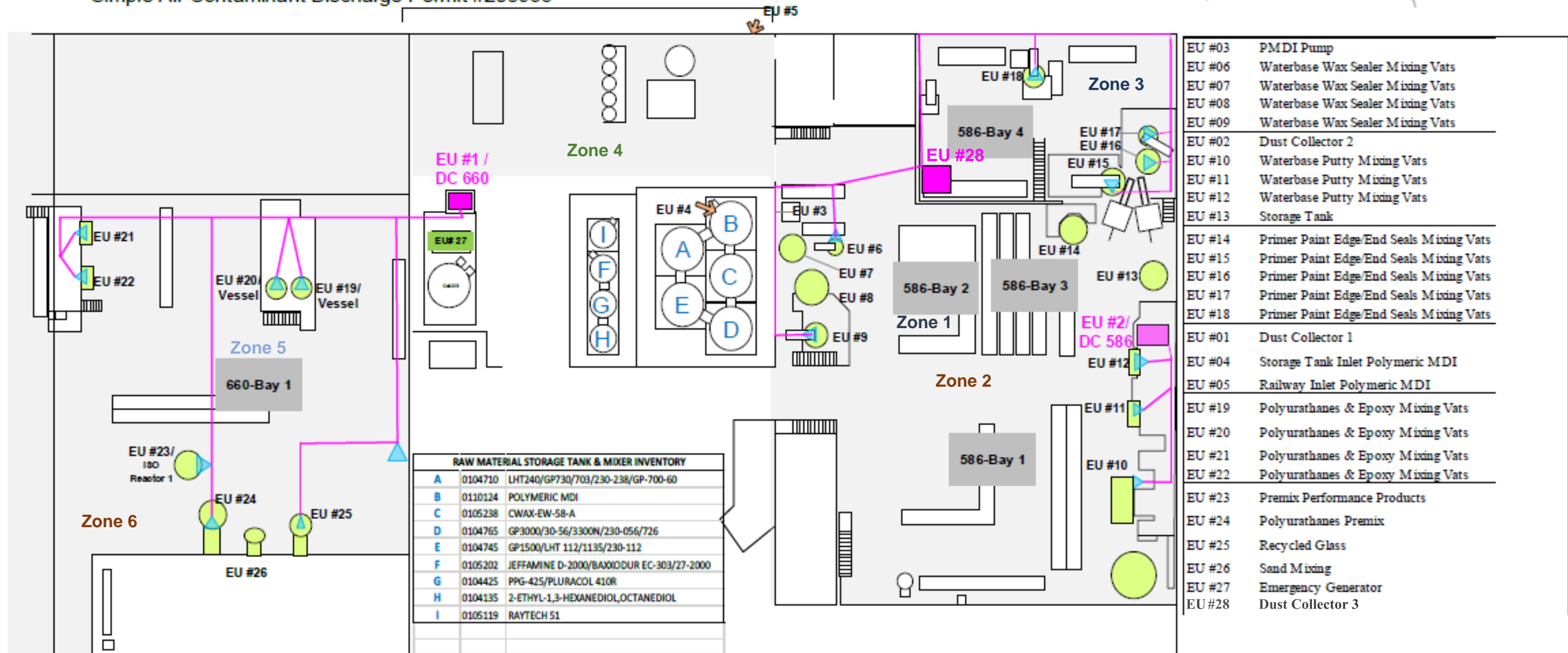
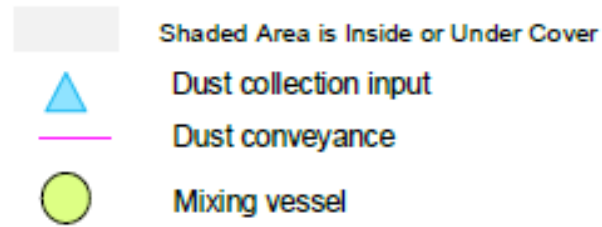
Facility Map of Emissions Sources

**Map of Emissions Sources**

Northwest Operations (Site 10)

Willamette Valley Company

Simple Air Contaminant Discharge Permit #208935



- EU #03 PMDI Pump
- EU #06 Waterbase Wax Sealer Mixing Vats
- EU #07 Waterbase Wax Sealer Mixing Vats
- EU #08 Waterbase Wax Sealer Mixing Vats
- EU #09 Waterbase Wax Sealer Mixing Vats
- EU #02 Dust Collector 2
- EU #10 Waterbase Putty Mixing Vats
- EU #11 Waterbase Putty Mixing Vats
- EU #12 Waterbase Putty Mixing Vats
- EU #13 Storage Tank
- EU #14 Primer Paint Edge/End Seals Mixing Vats
- EU #15 Primer Paint Edge/End Seals Mixing Vats
- EU #16 Primer Paint Edge/End Seals Mixing Vats
- EU #17 Primer Paint Edge/End Seals Mixing Vats
- EU #18 Primer Paint Edge/End Seals Mixing Vats
- EU #01 Dust Collector 1
- EU #04 Storage Tank Inlet Polymeric MDI
- EU #05 Railway Inlet Polymeric MDI
- EU #19 Polyurathanes & Epoxy Mixing Vats
- EU #20 Polyurathanes & Epoxy Mixing Vats
- EU #21 Polyurathanes & Epoxy Mixing Vats
- EU #22 Polyurathanes & Epoxy Mixing Vats
- EU #23 Premix Performance Products
- EU #24 Polyurathanes Premix
- EU #25 Recycled Glass
- EU #26 Sand Mixing
- EU #27 Emergency Generator
- EU #28 Dust Collector 3