Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit – Addendum 2

Review Report

The Willamette Valley Company LLC **Permit No. 208935**
586/660 McKinley Street
Eugene, OR 97402
http://www.wilvaco.com/

Source Information:

Primary SIC	2851
NAICS	325510
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	I

Compliance and Emissions Monitoring Requirements:

Unassigned Emissions	N
Emission Credits	N
Compliance Schedule	N
Source Test	N

COMS	N
CEMS	N
Ambient monitoring	N

Reporting Requirements

Annual Report (due date)	2/15
Semi-Annual Report (due date)	N
GHG Report (due date)	N
Monthly Report (due date)	N

Quarterly Report (due date)	N
Excess Emissions Report	Y
Other Reports (due date)	Y
- CAO Zoning Report	2/15

Air Programs

NSPS (list subparts)	A, IIII
NESHAP (list subparts)	ZZZZ
Compliance Assurance Monitoring (CAM)	N
Regional Haze (RH)	N
40 CFR part 68 Risk Management	N
Cleaner Air Oregon (CAO)	Y
Synthetic Minor (SM)	N
SM-80	N
Title V	N

Major FHAP Source	N
Federal Major Source	N
TACT	N
Type A State New Source Review	N
Type B State New Source Review	N
Prevention of Significant Deterioration (PSD)	N
Nonattainment New Source Review (NNSR)	N

Permittee Identification

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

2. The primary SIC code for this facility is 2851– Paints, Varnishes, Lacquers, Enamels, and Allied Products. The primary NAICS code for this facility is 325510 – Paint and Coating Manufacturing.

General Background

3. 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 typically 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

4. This permit action is a non-PSD/NSR Basic Technical Permit Modification to an existing Simple Air Contaminant Discharge Permit (Simple ACDP) to install a new 550-gallon capacity mixing vessel, to be known as Emissions Unit #33, in Building 2. The facility completed a Cleaner Air Oregon Risk Assessment on June 1, 2022, and conditions were included in the permit to ensure compliance with the risk-based limits. In accordance with Condition 20 of the permit, the facility completed a risk assessment for this proposed modification. The analysis resulted in a TEU Risk Assessment with no permit modification per LRAPA 37-8030. The modification of the Simple ACDP is considered a non-PSD/NSR simple technical permit modification.

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 September 23, 2022:

Date(s) Approved/Valid	Permit Action Type	Description
09/23/2022	Simple ACDP	Renewal of Simple ACDP

Date(s) Approved/Valid	Permit Action Type	Description
04/18/2023	NC-208935-A23	Approval to Construct two (2) polyurea mixing vessels (EU #29, EU #30), a solid material weigh scale (EU #31), and one (1) storage tank (EU #32)
06/05/2023	Addendum No. 1	Modification of Simple ACDP to incorporate NC-208935-A23
11/26/2024	NC-208935-A24	Approval to Construct one (1) epoxy mixing tank (EU #33)
11/26/2024	Addendum No. 2	Modification of Simple ACDP to incorporate NC-208935-A24

Emissions Unit Description

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

EU #	Emission Unit Description	Location	Emission Control Device
33	Mixing Vats – Epoxy	Zone 5	EU #1

Significant Emissions Units

8. Emission Unit #33
The facility is proposing to install a new 550-gallon capacity mixing vessel in Building 2. The proposed mixing vessel will be used for blending epoxy products exclusively and will not alter any existing processes at the facility. As the proposed mixing vessel will be a new model compared to the existing mixing vessel fleet, it will be used initially for research and development purposes prior to being fully implemented into the epoxy processing line. The proposed mixing vessel will not result in new formulations of epoxy products produced nor will it result in any new raw solid materials being used at the facility. VOC emissions from this process are based on a conservative assumption of the mixing vessel capacity throughput and a representative finished epoxy product with the highest VOC content. Based on the current permit, the facility assume a VOC loss of 0.015 pounds per pound of product as derived from US EPA, AP-42, Chapter 6.4 – Paint and Varnish. Particulate emissions are based on an emission factor from US EPA, AP-42, Chapter 6.4 – Paint and Varnish of 20 pounds per ton of solids. The particulate matter emissions from this process are controlled assuming 90% capture efficiency and 85% control efficiency.

Nuisance, Deposition and Other Emission Limitations

9. There are no changes in the applicability of any nuisance, deposition and other emission limitations in the current permit as related to the installation of Emissions Unit #33.

Typically Achievable Control Technology (TACT)

10. 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.

10.a. Emissions Unit #33 has potential emissions of VOC greater than one (1) ton per year. While a formal TACT determination has not been conducted, LRAPA has determined that no control likely meets TACT for emissions of VOC due to the high air flows and the low VOC concentrations resulting from this process.

10.b. Emissions Unit #33 does not have potential emissions of particulate matter greater than (1) ton per year. TACT is not applicable to this regulated pollutant.

New Source Performance Standards (NSPSs)

11. Emissions Unit #33 is not subject to any NSPS requirements.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

12. The installation of Emissions Unit #33 does not change the applicability of any NESHAP requirements.

Plant Site Emission Limits (PSELs)

13. The installation of Emissions Unit #33 does not change any PSELs applicable to this facility. The PSELs for this facility are in the current permit issued on September 23, 2022.

Significant Emission Rates

14. As a Simple ACDP, none of the existing PSEL, as compared to the netting basis in the current permit, exceed a Significant Emission Rate.

Unassigned Emissions and Emission Reduction Credits

15. The facility has no unassigned emissions. The facility has zero (0) tons of emission reduction credits.

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

16. 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. For CO and PM_{10}, the source is located in a maintenance area. The proposed PSELs for CO and PM_{10} are less than the 100 TPY threshold that determines the applicability of Major NSR in a maintenance area under Oregon rules.

Federal Hazardous Air Pollutants

17. The federal HAPs from this facility were last reviewed as part of the Simple ACDP renewal issued on September 22, 2022. The federal HAP emissions shown in the emission details for Emission Unit #33 are considered representative of the products produced in this mixing vessel, but do not represent any limitation.

Cleaner Air Oregon

18. As required by Condition 20 of the permit, which ensures risk from this facility does not exceed the permitted risk levels, the facility notified LRAPA prior to constructing Emission Unit #33. The facility calculated the additional risk from this project and demonstrated that the facility risk would not exceed the risk levels shown in the Permitted Risk Level column below, including the modification reviewed in 2023.

Risk Type	Original CAO Results	2023 Modification	Emission Unit #33	Total Risk	Permitted Risk Level
Cancer Risk – Added cancer risk per million with 70 years of exposure					
Residential	2.3	0	0.1	2.4	5
Non-Residential Child	<0.1	0	<0.1	<0.1	5
Non-Residential Worker	2.9	0	0.2	3.1	5
Noncancer Risk – Hazard Index (less than or equal to 1 is considered safe)					
Annual Exposure – Residential	0.1	<0.1	<0.1	0.1	1
Annual Exposure – Non-Residential Child	<0.1	<0.1	<0.1	<0.1	1
Annual Exposure – Non-Residential Worker	0.3	<0.1	<0.1	0.3	1
Acute 24-Hour Exposure	0.8	<0.1	<0.1	0.8	1

Toxics Release Inventory

19. 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 2023, this facility reported the release certain glycol ethers (CAS No. N230), diisocyanates (CAS No. N120), and nonphenol ethoxylates (CAS No. N535) on Form A.

Compliance History

20. LRAPA has not taken any enforcement action against this facility since the last Simple ACDP renewal was issued on September 23, 2022.

Source Testing History

21. This facility is not required to conduct source testing at this time.

Recordkeeping Requirements

22. The recordkeeping requirements for this facility are in the current permit issued September 23, 2022.

Reporting Requirements

23. The reporting requirements for this facility are in the current permit issued September 23, 2022.

Public Notice

24. In accordance with 37-0064(5)(b)(A), as a Non-PSD/NSR Basic Technical Permit Modification, Title 31 Category I public notice is required. Category I public notice procedures specify that no prior public notice or opportunity for participation is required.

JJW/aa
11/26/2024

Emission Details

Input Process Rates and Parameters
Willamette Valley Company—Eugene, Oregon

Source	Maximum Capacity Production					
	Daily			Annual		
GENERAL						
Continuous Facility Hours of Operation	24.0	(hrs/day)	[2]	8,760	(hrs/yr)	[2]
CAPACITY PRODUCT MANUFACTURING (EPOXIES)						
Proposed Mixing Vessel	3,300	(gal/day)	[a]	1,204,500	(gal/yr)	[b]

Notes

[a] Maximum capacity daily production rate (gal/day) = (epoxy produced for one batch [gal/batch]) x (maximum capacity daily batches (batch/day))

Epoxy produced in one batch (gal/batch) =	550	(1)
Maximum capacity daily batches (batch/day) =	6.00	(3)

[b] Maximum capacity annual epoxy production(gal/yr) = (maximum capacity daily epoxy production [gal/day]) x (365 days of operation per year)

References

[1] Information or data provided by the Willamette Valley Company.

[2] Represents continuous annual operation for maximum capacity emissions calculation purposes only. Facility currently operates a maximum of 2,210 hours per year.

[3] Represents capacity batches of epoxy that could be produced from the proposed mixing vessel based on continuous daily operation. PTE daily production will be 1-2 batches.

Proposed Epoxy Mixing Vessel VOC Emissions Estimates
Willamette Valley Company—Eugene, Oregon

Finshed Product ID [1]	Product Name [1]	Mixing Vessel Capacity Epoxy Throughput [2] (gal/yr)	Density (lb/gal) [1]	Chemical Compound [1]	CAS	Pollutant Wt % [1]	VOC? (Yes/No)	HAP? (Yes/No)	TAC? (Yes/No)	Capacity Calculations	
										Capacity Chemical Usage [a] (lb/yr)	Capacity Annual Emissions [b] (tons/yr)
1520828	E-800-B EPOXY HARDENER [MED] BLACK	1,204,500	8.41	Propylene Glycol	57-55-6	28.04	Yes	No	Yes	2,840,409	21.3
										Total VOC	**21.3**

Notes

VOC = volatile organic compound.

[a] Capacity chemical usage (lb/yr) = (mixing vessel capacity epoxy throughput [gal/yr]) x (VOC compound [%] / 100) x (finished product density [lb/gal])

[b] Maximum capacity annual emissions (ton/yr) = (capacity annual chemical usage [lb/yr]) x (VOC emission factor [lb/lb]) / (2,000 [lb/ton])

VOC emission factor (lb/lb) = 0.015 (3)

References

[1] Representative of the finished epoxy product with the highest VOC content. VOC content and density provided by VOC/HAP report provided by the Willamette Valley Company.

[2] See Table 1, Input Process Rates and Parameters

[3] Existing permit No. 208935, Condition 5.a. "Reference AP-42 Table 6.4-1."

MERPs Tier 1 Demonstration for Ozone
Willamette Valley Company—Eugene, Oregon

Precursor	Capacity Mixing Vessel Emissions Estimate (tons/yr)	Hypothetical 8-Hour Ozone from Precursor (tons/yr)
VOC	21.3 [1]	1,049 [2]

Pollutant and Averaging Period	Class II SIL (Units)	Secondary Impact		Additive Secondary Impact Percentage Less than 100%?
		Concentration (ppb)	Percent of SIL	
Ozone Annual	1.0 (ppb) [3]	2.03E-02 [a]	2.03 [b]	Yes [4]

Notes

VOC = volatile organic compound; SIL = significant impact level; ppb = parts per billion.

[a] Ozone 8-hour secondary impact concentration (ppb) = ([proposed annual NO_X emissions estimate {tons/yr}] / [hypothetical 8-hour ozone from NO_X {tons/yr}] + [proposed annual VOC emissions estimate {tons/yr}] / [hypothetical 8-hour ozone from VOC {tons/yr}]) x (ozone annual class II SIL [ppb])

[b] Secondary impact percent of SIL (%) = (secondary impact concentration [$\mu g/m^3$]) / (class II SIL [$\mu g/m^3$]) x (100%)

References

[1] See Table 2, Proposed Epoxy Mixing Vessel VOC Emissions Estimates.

[2] EPA, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for O_3 and $PM_{2.5}$ under the PSD Permitting Program, "April 30, 2019. Table 4-1 "Lowest, median, and highest illustrative MERP values (tons/yr) by precursor, pollutant and climate zone." Conservatively assumes the lowest MERP values for the Northwest climate zone as the most-representative of the Clatskanie area.

[3] EPA, "Guidance on Significant Impact Levels for Ozone and Fine Particulate in the Prevention of Significant Deterioration Permitting Program," April 17, 2018.

[4] EPA, "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier I Demonstration Tool for O_3 and $PM_{2.5}$ under the PSD Permitting Program, "April 30, 2019. Per Section 4.1, a value less than 100% indicates that the SIL would not be exceeded when considering the combined impacts of the applicable precursors.

Input Mixing Vessel Parameters
Willamette Valley Company—Eugene, Oregon

Epoxy Mixing Vessel	Physical Parameters			Exposed Area / Capacity Ratio [b]	Worst Case Tank [2]
	Maximum Liquid Capacity [1]	Vessel Diameter [1]	Exposed Surface Area [a]		
	(gal)	(ft)	(ft^2)	(ft^2/gal)	
Existing Epoxy Mixing Vessel					
NWC04 Urethane-Epoxy	200	4.00	12.57	0.063	X
Proposed Epoxy Mixing Vessel					
Epoxy Tank (EU 29)	550	4.00	12.57	0.023	--

Notes

[a] Exposed surface area (ft^2) = (π x [tank diameter {ft} / 2]^2)

[b] Exposed area / capacity ratio (ft^2/gal) = (exposed surface area [ft^2]) / (maximum liquid capacity of vessel [gal])

References

[1] Information provided by The Willamette Valley Company,

[2] Surface area and number of turnovers are directly related to emissions calculated using equation 8.4-22 of EPA (2005). Number of turnovers is calculated by dividing the throughput by vessel capacity. Therefore, surface area is in the numerator and vessel capacity is in the denominator. The vessel having the largest surface area per volume (capacity, in gallons) will therefore produce the highest evaporative emissions for a given throughput during blending, assuming all other variables are equal. TAC emissions are estimated assuming all product is processed through the tank having the highest surface area to capacity ratio for each product category.

Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Non-Solids Only)
Willamette Valley Company—Eugene, Oregon

Finished Product ID	Finished Product Name	Product Density [1] (lb/gal)	Toxic Air Contaminant [1]	CAS	TAC? (Yes/No)	Solid State? (Yes/No)	Product Mass Fraction [1]	Liquid Mass Fraction [a]	Molecular Weight (lb/lb-mol)	Liquid Mole Fraction [b] (mole/mole)	Daily-Basis (psi)		Annual-Basis (psi)		Emissions Estimate	
											Vapor Pressure [2]	Partial Pressure [c]	Vapor Pressure [2]	Partial Pressure [c]	(lb/day) [d]	(lb/yr) [e]
Worst-Case Epoxy Product (Cancer and Acute Noncancer Risk) [7]																
--	--	7.50	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	0.78	1.00	321	1.00	--	--	--	--	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	2.04E-04	--	--	--	--	--	--	--	[8]	[8]
			Vinylidene chloride	75-35-4	Yes	No	5.17E-06	6.60E-06	96.9	2.18E-05	12.9	2.82E-04	8.70	1.90E-04	6.02E-03	1.53
			Acrylonitrile	107-13-1	Yes	No	4.32E-06	5.52E-06	53.1	3.33E-05	2.42	8.07E-05	1.51	5.03E-05	9.42E-04	0.22
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	2.58E-04	--	--	--	--	--	--	--	[8]	[8]
Worst-Case Polyurea Product (Chronic Noncancer Risk) [9]																
--	--	8.91	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	0.78	--	--	--	--	--	--	--	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	6.58E-04	--	--	--	--	--	--	--	[10]	[8]
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	3.72E-03	--	--	--	--	--	--	--	[10]	[8]
			4,4'-Isopropylidenediphenol	80-05-7	Yes	Yes	4.40E-02	--	--	--	--	--	--	--	[10]	[8]

Notes

TAC = toxic air contaminant.

PSI = pound per square inch.

[a] Liquid mass fraction (lb/lb) = (component mass fraction [unitless]) / (∑ [product mass fraction {unitless}])

[b] Liquid mole fraction (mole/mole) = (liquid volume fraction of volatile component [mole/mole] / molecular weight of volatile component [lb/lb-mole]) / ∑ (liquid mass fraction of all volatile components in solution [mole/mole] / average molecular weight of solution [lb/lb-mole])

[c] Partial pressure of volatile component (psi) = (liquid mole fraction [mole/mole]) x (vapor pressure of volatile component [psi])

[d] Emissions estimate (lb/day) = (6.92) x (saturation factor) x (partial vapor pressure [psi]) x (molecular weight [lb/lb-mol]) x (proposed daily epoxy production in new mixing vessel [gal/day]) x (Mgal/1,000 gal) / (temperature [K]) x (number of events)

Saturation factor = 1.45 (3)
Temperature (K) = 301 (4)
Number of filing and unloading events = 2 (5)
Proposed daily epoxy production in new vessel (gal/day) = 3,300 (6)

[e] Emissions estimate (lb/yr) = (6.92) x (saturation factor) x (partial vapor pressure [psi]) x (molecular weight [lb/lb-mol]) x (proposed annual epoxy production in new mixing vessel [gal/day]) x (Mgal/1,000 gal) / (temperature [K]) x (number of events)

Saturation factor = 1.45 (3)
Temperature (K) = 291 (4)
Number of filing and unloading events = 2 (5)
Proposed annual epoxy production in new vessel (gal/yr) = 1,204,500 (6)

References

[1] Information obtained using safety data sheets collected and reviewed during the Cleaner Air Oregon permitting process. Values are consistent with those used in the toxic air contaminant emissions inventory approved by thbe Lane Regional Air Protection Agency via letter dated December 22, 2021.

[2] Annual and daily vapor pressures as assumed in Cleaner Air Oregon permitting process.

[3] AP-42 Chapter 5 (July 2008), Table 5.2-1 "Saturation (S) Factors for Calculating Petroleum Liquid Loading Losses." Assumes splash loading mode of operation as the dedicated normal service.

[4] Climate Summary for Eugene, Oregon (1938-2016). Temperatures converted from Fahrenheit to Kelvin. Assumes the average daily temperature for filing and unloading operations.

[5] Number of filing and unloading events represents the actual loading of the mixing vessel and the filing of final product totes.

[6] Represents the proposed daily and annual epoxy production resulting from the proposed new mixing vessel.

[7] Represents the epoxy product with the highest risk-weighted cancer and acute noncancer risk as determined during the Cleaner Air Oregon permitting process.

[8] TAC is in solid form. For estimates of solid-TAC emissions see Table 6, Proposed Mixing Vessel Filing/Unloading TAC Emission Increase Estimates (Solids Only).

[9] Represents the epoxy product with the highest risk-weighted chornic noncancer risk as determined during the Cleaner Air Oregon permitting process.

[10] This product represents the worst case chronic noncancer epoxy product and therefore, daily emissions were not estimated.

Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Solids Only)
Willamette Valley Company—Eugene, Oregon

Finished Product ID	Finished Product Name	Product Density [1] (lb/gal)	Toxic Air Contaminant [1]	CAS	TAC? (Yes/No)	Solid State? (Yes/No)	Product Mass Fraction [1]	Emissions Estimate (lb/day) [a]	Emissions Estimate (lb/yr) [b]
Worst-Case Epoxy Product (Acute Noncancer Risk) [6]									
--	--	7.50	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	0.78	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	2.04E-04	0.01	4.34
			Vinylidene chloride	75-35-4	Yes	No	5.17E-06	[7]	[7]
			Acrylonitrile	107-13-1	Yes	No	4.32E-06	[7]	[7]
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	2.58E-04	0.02	5.48
Worst-Case Epoxy Product (Chronic Noncancer Risk) [8]									
--	--	8.91	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	0.78	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	6.58E-04	[9]	16.6
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	3.72E-03	[9]	93.7
			4,4'-Isopropylidenediphenol	80-05-7	Yes	Yes	4.40E-02	[9]	1,111

Notes

TAC = toxic air contaminant.

PM = particulate matter.

[a] Daily emissions estimate (lb/day) = (PM emission factor [lb/ton]) x (ton/2,000 lb) x (proposed daily polyurea production from new mixing vessel [gal/yr]) x (product density [lb/gal]) x (mass fraction of component) x (1 - [capture efficiency {%} / 100] x [control efficiency {%} / 100])

PM emission factor (lb/ton) =	20.0	(2)
Dust collector collection efficiency (%) =	90.0	(3)
Dust collector PM control efficiency (%) =	85.0	(4)
Proposed daily epoxy production in new vessel (gal/yr) =	3,300	(5)

[b] Annual emissions estimate (lb/yr) = (PM emission factor [lb/ton]) x (ton/2,000 lb) x (proposed increase in annual polyurea production [gal/yr]) x (product density [lb/gal]) x (mass fraction of component) x (1 - [capture efficiency {%} / 100] x [control efficiency {%} / 100])

PM emission factor (lb/ton) =	20.0	(2)
Dust collector collection efficiency (%) =	90.0	(3)
Dust collector PM control efficiency (%) =	85.0	(4)
Proposed annual epoxy production in mixing vessel (gal/yr) =	1,204,500	(5)

References

[1] Information obtained using safety data sheets collected and reviewed during the Cleaner Air Oregon permitting process. Values are consistent with those used in the toxic air contaminant emissions inventory approved by the Lane Regional Air Protection Agency via letter dated December 22, 2021.

[2] AP-42 Chapter 6.4 (January 1995), Table 6.4-1 "Uncontrolled Emission Factors for Paint and Varnish Manufacturing." Assumes emission factor for paint.

[3] Assumes the capture efficiency of the control device to be approximately 90 percent due to forced draft ventilation through overhead hood during material filling operations. Value as used in the approved CAO emissions inventory.

[4] PM control efficiency provided by the dust collector manufacturer. Value as used in the approved CAO emissions inventory.

[5] Represents the proposed daily and annual epoxy production resulting from the proposed new mixing vessel.

[6] Represents the epoxy product with the highest risk-weighted cancer and acute noncancer risk as determined during the Cleaner Air Oregon permitting process.

[7] TAC is in liquid form. For estimates of Non-solid TAC emissions see Table 5, Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Non-Solids Only).

[8] Represents the epoxy product with the highest risk-weighted chronic noncancer risk as determined during the Cleaner Air Oregon permitting process.

[9] This product represents the worst case chronic noncancer epoxy product and therefore, daily emissions were not estimated.

Proposed Mixing Vessel Blending TAC Emission Increase Estimates
Willamette Valley Company—Eugene, Oregon

Finished Product ID	Finished Product Name	Product Density [1] (lb/gal)	Toxic Air Contaminant [1]	CAS	TAC? (Yes/No)	Solid State? (Yes/No)	Molecular Weight (lb/lb-mol)	Partial Pressure [2]		Gas-Phase Mass Transfer Coefficient [a] (ft/sec)	Emissions Estimate	
								Daily-Basis	Annual-Basis		(lb/day) [b]	(lb/yr) [d]
Worst-Case Epoxy Product (Acute Noncancer Risk) [8]												
--	--	7.50	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	--	--	--	--	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	--	--	--	--	--	[9]
			Vinylidene chloride	75-35-4	Yes	No	97	2.82E-04	1.90E-04	2.73E-03	0.03	10.2
			Acrylonitrile	107-13-1	Yes	No	53	8.07E-05	5.03E-05	3.33E-03	5.33E-03	1.95
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	--	--	--	--	--	[9]
Worst-Case Epoxy Product (Chronic Noncancer Risk) [10]												
--	--	8.91	Non-TAC Major Component (Bisphenol A Polymer)	25068-38-6	No	No	--	--	--	--	--	--
			Aluminum oxide (fibrous forms)	1344-28-1	Yes	Yes	--	--	--	--	[11]	[9]
			Silica, crystalline (respirable)	7631-86-9	Yes	Yes	--	--	--	--	[11]	[9]
			4,4'-Isopropylidenediphenol	80-05-7	Yes	Yes	--	--	--	--	[11]	[9]

Notes

TAC = toxic air contaminant.

[a] Gas-phase mass transfer coefficient (ft/s) = (0.00438) x (wind speed estimate [mph])^(0.78) x ([18] / [molecular weight of component {lb/lb-mole}])^(1/3)

Wind speed estimate (mph) = 1.12 (3)

[b] Emissions estimate (lb/day) = (molecular weight of component [lb/lb-mol]) x (gas-phase mass transfer coefficient [ft/sec]) x (surface area of vessel opening [ft^2]) x (partial vapor pressure of component [psia]) x (3,600 s/hr) x (duration of batch [hr/batch]) / (10.73 psi-ft3/lb-mol-°R) / (temperature [°R]) x (proposed daily epoxy production in new vessel [gal]) / (liquid capacity of vessels [gal])

Surface area of vessel opening (ft^2) = 12.6 (c)
Duration of batch (hr/batch) = 8.0 (4)
Temperature (°R) = 542 (5)
Liquid capacity of vessel (gal/Vessel) = 550 (6)
Proposed daily epoxy production in new vessel (gal/day) = 3,300 (7)

[c] Surface area of vessel opening (ft^2) = (π/4) x (mixing vessel diameter [ft])^2

Mixing vessel diameter (ft) = 4.00 (6)

[d] Emissions estimate (lb/yr) = (molecular weight of component [lb/lb-mol]) x (gas-phase mass transfer coefficient [ft/sec]) x (surface area of vessel opening [ft^2]) x (partial vapor pressure of component [psia]) x (3,600 s/hr) x (duration of batch [hr/batch]) / (10.73 psi-ft3/lb-mol-°R) / (temperature [°R]) x (proposed annualproduction in vessel [gal]) / (liquid capacity of vessels [gal])

Surface area of vessel opening (ft^2) = 12.6 (c)
Duration of batch (hr/batch) = 8.0 (4)
Temperature (°R) = 542 (5)
Liquid capacity of vessel (gal/Vessel) = 550 (6)
Proposed daily epoxy production in new vessel (gal/day) = 1,204,500 (7)

References

[1] Information obtained using safety data sheets collected and reviewed during the Cleaner Air Oregon permitting process. Values are consistent with those used in the toxic air contaminant emissions inventory approved by the Lane Regional Air Protection Agency via letter dated December 22, 2021.
[2] See Table 5, Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Non-Solids Only).
[3] Value is consistent with what was used in approved CAO emissions inventory.
[4] Assumes current PTE operational schedule of one batch per shift and one shift per day.
[5] Climate Summary for Eugene, Oregon (1938-2016). Temperatures converted from Fahrenheit to Kelvin. Assumes the average annual temperature for filling and unloading operations.
[6] See Table 4, Input Mixing Vessel Parameters. Representative of diameter of new mixing vessel.
[7] See Table 1, Input Process Rates and Parameters.
[8] Represents the epoxy product with the highest risk-weighted cancer and acute noncancer risk as determined during the Cleaner Air Oregon permitting process.
[9] TAC is in solid form. For estimates of solid-TAC emissions see Table 6, Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Solids Only).
[10] Represents the epoxy product with the highest risk-weighted chronic noncancer risk as determined during the Cleaner Air Oregon permitting process.
[11] This product represents the worst case chronic noncancer epoxy product and therefore, daily emissions were not estimated.

Proposed Mixing Vessel Emissions Summary
Willamette Valley Company—Eugene, Oregon

Toxic Air Contaminant	CAS	RBC? (Yes/No)	Loading/Unloading				Blending		Total	
			Non-Solids		Solids					
			Daily (lb/day)	Annual (lb/yr)	Daily (lb/day)	Annual (lb/yr)	Daily (lb/day)	Annual (lb/yr)	Daily (lb/day)	Annual (lb/yr)
ORGANIC COMPOUNDS										
Acrylonitrile	107-13-1	Yes	6.02E-03 [1]	1.53 [1]	--	--	2.79E-02 [2]	10.2 [2]	3.39E-02	11.7
Vinylidene chloride	75-35-4	Yes	9.42E-04 [1]	0.22 [1]	--	--	5.33E-03 [2]	1.95 [2]	6.27E-03	2.17
INORGANIC COMPOUNDS										
Aluminum oxide (fibrous forms)	1344-28-1	No	--	--	0.01 [3]	20.9 [3]	--	--	1.19E-02	20.93
Silica, crystalline (respirable)	7631-86-9	Yes	--	--	0.02 [3]	99.2 [3]	--	--	1.50E-02	99.22
4,4'-Isopropylidenediphenol	80-05-7	No	--	--	[4]	1,111 [3]	--	--	--	1,111

Notes

RBC = Risk-based concentration.

References

[1] See Table 5, Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Non-Solids Only).

[2] See Table 7, Proposed Mixing Vessel Blending TAC Emission Increase Estimates.

[3] See Table 6, Proposed Mixing Vessel Filling/Unloading TAC Emission Increase Estimates (Solids Only).

[4] TAC is in raw material used for the worst case annual epoxy product and therefore, daily emissions were not estimated.

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
(541) 736-1056

REVIEW REPORT
Addendum No. 1

The Willamette Valley Company LLC **Permit No. 208935**
586/660 McKinley Street
Eugene, Oregon 97402
http://www.wilvaco.com/

Source Information:

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

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	NA	Source test [date(s)]	NA
Emission credits	NA	COMS	NA
Special Conditions	NA	CEMS	NA
Compliance schedule	NA	Ambient monitoring	NA

Reporting Requirements:

Annual report (due date)	February 15	Excess emissions report	Y
NSPS Report (due date)	NA	Other reports	NA
Monthly report (due dates)	NA		

Air Programs:

NSPS (list subparts)	A, IIII	Acid Rain	NA
NESHAP (list subparts)	ZZZZ	Clean Air Mercury Rule (CAMR)	NA
CAM	NA	TACT	NA
Regional Haze (RH)	NA	>20 Megawatts	NA
Synthetic Minor (SM)	NA	Cleaner Air Oregon (CAO)	Y
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		

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 non-PSD/NSR Basic Technical Permit Modification to an existing Simple Air Contaminant Discharge Permit (Simple ACDP) to include two (2) polyurea mixing vats (EU #29 and EU #30), one (1) solid material weigh scale (EU #31), and one (1) storage tank (EU #32). The facility completed a Cleaner Air Oregon Risk Assessment on June 1, 2022, and conditions were included in the permit to ensure compliance with the risk-based limits. In accordance with Condition 20 of the permit, the facility completed a risk assessment of a new product formulation and submitted the analysis, which resulted in a TEU Risk Assessment with no permit modification per LRAPA 37-8030.

Plant Site Emissions Limits (PSELs)

4. The PSELs for this facility are in the current permit issued September 23, 2022.

Emission Unit Descriptions

5. This permit action required a revision of the emission units at the facility. The two (2) polyurea mixing vats (EU #29 and EU #30), one (1) solid material weigh scale (EU #31), and one (1) storage tank (EU #32) were added to the emission unit table in Condition 2 of the permit. An updated map of the emission units and their corresponding zones within the facility is attached to this addendum to the review report. There are no other changes to the emission unit descriptions as a result of this permit action.

EU #	Emission Unit Description	Location	Emission Control Device
29	Mixing Vat – Polyurea	Zone 6	EU #1
30	Mixing Vat – Polyurea	Zone 6	EU #1
31	Solid Material Weigh Scale	Zone 6	EU #1
32	Storage Tank	Zone 2	None

Cleaner Air Oregon

6. As required by Condition 20 of the permit, which ensures risk from this facility does not exceed the levels demonstrated in the completed risk assessment, the facility notified LRAPA prior to using a new product formulation that contained TACs that were not included in the completed emissions inventory. The facility calculated the additional risk from this new product formulation and demonstrated that the facility risk would not exceed the risk levels shown below. Pre and post construction risk assessment calculations are included in the attachment to this addendum to the review report.

Risk Type	Facility Risk	Risk Assessment Results
Cancer Risk – Added cancer risk per million with 70 years of exposure		
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	
Noncancer Risk – Hazard Index (less than or equal to 1 is considered safe)		
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

Typically Achievable Control Technology (TACT)

7. LRAPA 32-008 requires new and modified emission units 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 Title 32, Title 33, Title 39, Title 46 or Major NSR or Type A State NSR under Title 38 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 one (1) ton per year of any criteria pollutant; and LRAPA determines the proposed air pollution control devices and emission reduction processes in use for the emissions do not represent TACT. The emissions units associated with this modification will not emit more than 1 ton of VOC per year and are therefore not required to meet TACT for VOC.

New Source Performance Standards (NSPS)

8. This permitting action does not change the current NSPS applicability of the facility.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

9. This permitting action does not change the current NESHAP applicability of the facility.

Recordkeeping

10. The recordkeeping requirements for this facility are in the current permit issued September 23, 2022.

Reporting Requirements

11. The reporting requirements for this facility are in the current permit issued September 23, 2022.

Public Notice

12. In accordance with 37-0064(4)(b)(A), as a Non-PSD/NSR Basic Technical Permit Modification, Title 31 Category I public notice is required. Category I public notice procedures specify that no prior public notice or opportunity for participation is required.

KE/RR
6/2/2023

Cleaner Air Oregon Level 1 – Pre and Post Construction Risk Assessment

Risk Assessment Values – Preconstruction							
TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
BUILDING1	2.15	0.011	2.88	0.07	2.1E-03	0.27	0.55
BUILDING2-STK	0.013	6.7E-05	0.021	6.9E-03	2.1E-04	0.031	0.15
BUILDING2-FUG	0	0	0	1.1E-03	2.4E-05	2.0E-03	0
MDI_BULK	0	0	0	6.7E-07	2.0E-08	1.4E-06	6.0E-06
RESIN_BULK	0	0	0	7.6E-10	2.2E-11	1.6E-09	7.7E-08
MDI_RAIL	0	0	0	5.7E-06	1.9E-07	3.1E-05	4.8E-05
EGEN	0.102	3.6E-04	0.043	1.2E-03	1.5E-05	2.2E-03	0.058
Total Risk	2.27	0.01	2.94	0.08	2.3E-03	0.30	0.76

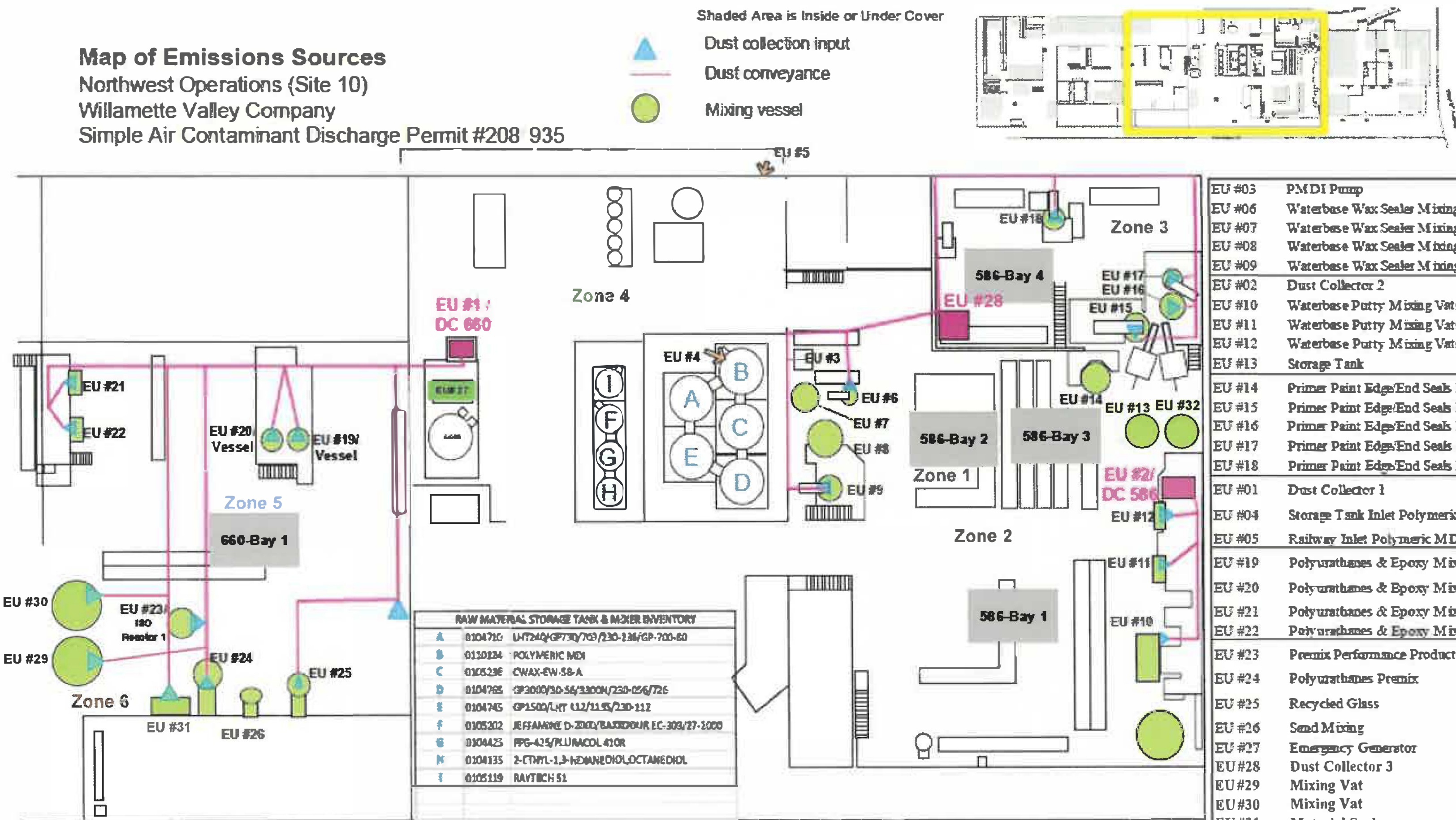
Risk Associated with Construction							
TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
BUILDING1	0	0	0	2.3E-08	6.4E-10	8.1E-08	0
BUILDING2-STK	0	0	0	7.6E-03	2.2E-04	0.034	0.025
BUILDING2-FUG	0	0	0	1.5E-03	3.1E-05	2.5E-03	0
Total Risk	0	0	0	9.0E-03	2.5E-04	0.036	0.025

Risk Assessment Values – Postconstruction							
TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
BUILDING1	2.15	0.011	2.88	0.07	2.1E-03	0.27	0.55
BUILDING2-STK	0.013	6.7E-05	0.021	0.014	4.3E-04	0.064	0.17
BUILDING2-FUG	0	0	0	2.6E-03	5.5E-05	4.4E-03	0
MDI_BULK	0	0	0	6.7E-07	2.0E-08	1.4E-06	6.0E-06
RESIN_BULK	0	0	0	7.6E-10	2.2E-11	1.6E-09	7.7E-08
MDI_RAIL	0	0	0	5.7E-06	1.9E-07	3.1E-05	4.8E-05
EGEN	0.102	3.6E-04	0.043	1.2E-03	1.5E-05	2.2E-03	0.058
Total Risk	**2.27**	**0.01**	**2.94**	**0.09**	**2.6E-03**	**0.34**	**0.78**

%change	0.0%	0.0%	0.0%	9.8%	9.8%	10.7%	3.2%
Risk Limit	5	5	5	1	1	1	1
Acceptable Risk (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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

Updated Facility Map of Emissions Sources



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
EU #29	Mixing Vat
EU #30	Mixing Vat
EU #31	Material Scale
EU #32	Storage Tank

RAW MATERIAL STORAGE TANK & MIXER INVENTORY		
A	0104710	LHT240/GP730/703/230-238/GP-700-60
B	0130234	POLYMERIC MDI
C	0105238	CWAX-EW-58-A
D	0104765	GP3000/30-56/3300N/230-056/726
E	0104745	GP1500/LHT 112/1155/230-112
F	0105202	JEFFAMINE D-2000/BAXXODUR EC-303/27-2000
G	0104425	PPG-425/PLURACOL 410R
H	0104135	2-ETHYL-1,3-HEXANEDIOL,OCTANEDIOL
I	0105119	RAYTECH 51

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
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REVIEW REPORT

The Willamette Valley Company LLC — **Permit No. 208935**
586/660 McKinley Street
Eugene, Oregon 97402
http://www.wilvaco.com/

Source Information:

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

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	NA	Source test [date(s)]	NA
Emission credits	NA	COMS	NA
Special Conditions	NA	CEMS	NA
Compliance schedule	NA	Ambient monitoring	NA

Reporting Requirements:

Annual report (due date)	February 15	Excess emissions report	Y
NSPS Report (due date)	NA	Other reports	NA
Monthly report (due dates)	NA		

Air Programs:

NSPS (list subparts)	A, IIII	Acid Rain	NA
NESHAP (list subparts)	ZZZZ	Clean Air Mercury Rule (CAMR)	NA
CAM	NA	TACT	NA
Regional Haze (RH)	NA	>20 Megawatts	NA
Synthetic Minor (SM)	NA	Cleaner Air Oregon (CAO)	Y
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		

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 $PM_{2.5}$, NO_2, SO_2, Ozone, and Pb and a maintenance area for CO and PM_{10}.

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

7. 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 CCCCCCC. 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

8. 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

9. 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**
Cancer Risk – Added cancer risk per million with 70 years of exposure		
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	
Noncancer Risk – Hazard Index (less than or equal to 1 is considered safe)		
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

13. 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

14. 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.

15. 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.

16. 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 PSELs 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 PSELs 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 CCCCCCC 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 CCCCCCC 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 15th 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.

KE/RR
9/28/2022

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
MDI Emissions				
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
			lb/yr	**ton/yr**
*Indicates a federally listed HAP		**Total VOC**	**2771**	**1.36**
		Total HAP	**600**	**0.30**

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_{10} Portion	99.5	%	DEQ AQ-EF03 Baghouse Emissions
$PM_{2.5}$ Portion	99.0	%	DEQ AQ-EF03 Baghouse Emissions

Product Throughput[1]		PM Emissions[2]	PM_{10} Emissions[2]	$PM_{2.5}$ Emissions[2]
lbs/yr	tons/yr	tons/yr	tons/yr	tons/yr
28,423,213	14,211	0.28	0.28	0.28

[1]NOTE: Maximum product throughput value provided by the facility.
[2]NOTE: Emissions are under the de minimis value of 1 ton per year. No PSELs for particulate matter (PM), PM_{10} or $PM_{2.5}$ are required.

Plant Site Emission Limit Calculation Summary (continued)

Emergency Generator Potential to Emit

Number of Generators	1
Make	Generac
Model	7.5DMTA
Build Date	2005
Maximum Engine Power[1]	150 kW
	201 HP
Displacement	7.5 liters

Maximum Gallons/hr	12
Maximum Hours Operated	100

Generator Emissions Estimate[2]		
NO_x 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_{10} emissions	0.03	tons/100 hours
$PM_{2.5}$ emissions	0.03	tons/100 hours
SO_2 emissions	0.02	tons/100 hours

[1]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.

[2]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

Pollutant	**Distillate Oil Emission Factor (lb/1000 gallons)**
PM	42.5
PM_{10}	42.5
$PM_{2.5}$	42.5
NO_x	604
CO	130
VOC	49.3
SO_2	39.7

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

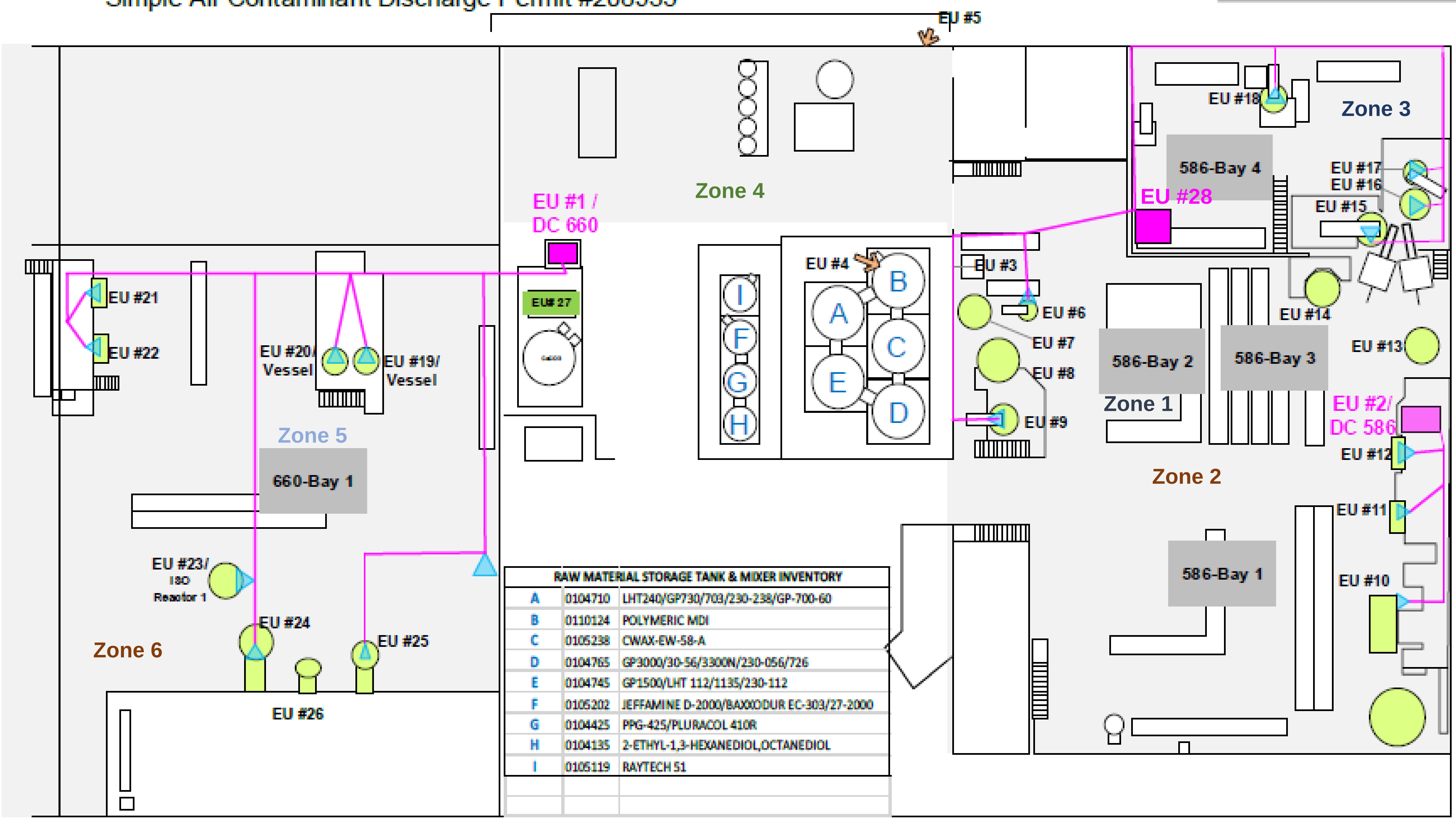
TEU Identifier	TAC	CAS Number	Annual Emissions	Daily Max Emissions
			lb/yr	lb/day
BUILDING1	Methylene diphenyl diisocyanate (MDI)	101-68-8	2.4E-04	1.7E-05
BUILDING1	Formaldehyde	50-00-0	1,688	9.32
BUILDING1	Methanol	67-56-1	13.8	9.6E-02
BUILDING1	Benzene	71-43-2	3.32	2.2E-02
BUILDING1	Acrylic acid	79-10-7	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



RAW MATERIAL STORAGE TANK & MIXER INVENTORY		
A	0104710	LHT240/GP730/703/230-238/GP-700-60
B	0110124	POLYMERIC MDI
C	0105238	CWAX-EW-58-A
D	0104765	GP3000/30-56/3300N/230-056/726
E	0104745	GP1500/LHT 112/1135/230-112
F	0105202	JEFFAMINE D-2000/BAXXODUR EC-303/27-2000
G	0104425	PPG-425/PLURACOL 410R
H	0104135	2-ETHYL-1,3-HEXANEDIOL,OCTANEDIOL
I	0105119	RAYTECH 51

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