

Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit
(Simple-ACDP)

REVIEW REPORT

Willamette Valley Company

586/660 McKinley Street
Eugene, Oregon 97402
Website: <http://www.wilvaco.com/>

Permit No. 208935

General Background Information

1. Lane Regional Air Protection Agency (LRAPA) has reviewed the permit renewal application received on June 22, 2015. The contents of the application and subsequent correspondence with the facility were the basis for the calculations contained within this review report.
2. Willamette Valley Company operates a wood filler, putty and coating manufacturing operation at 586 and 660 McKinley Street in Eugene, Oregon. The facility controls particulate matter (PM/PM₁₀/PM_{2.5}) emissions by utilizing dust collectors, silo filters on dry raw material storage silos, a vacuum system for material recovery in the dry mixing areas and, as necessary, closing the mixing-area doors. The facility operates 2,210 hours per year (8.5 hours per day, 5 days per week, 52 weeks per year).

Emission Unit Descriptions

3. 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	
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 #1
7 – 8	Mixing Vat – Liquid Only	Zone 1	None
9	Mixing Vat – Waterbase	Zone 1	EU #1
10 – 12	Mixing Vat – Waterbase	Zone 2	EU #2

EU #	Emission Unit Description	Location	Emission Control Device
13	Storage Tank	Zone 2	None
14	Storage Tank	Zone 3	None
15 – 18	Mixing Vats – Primer Paint	Zone 3	EU #2
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

Reasons for Permit Action and Fee Basis

4. The facility operates a process listed in LRAPA Title 37, Table 1 Part B: B.81 Paint and Allied Products Manufacturing subject to an Area Source NESHAP and is, therefore, required to obtain a permit. The facility had previously been permitted under the “Surface Coating Manufacturing” category under B.68, but during the renewal process it was determined that the facility is subject to the National Standard for Hazardous Air Pollutants (NESHAP) Subpart CCCCCC for Paints and Allied Products Manufacturing, and the category was changed to reflect the NESHAP applicability. This is an existing facility applying for a renewal permit as a Simple-Low ACDP. The facility qualifies for the Simple “Low” fee due to actual VOC emissions of under 10 tons/year. The primary reason for this permit action is to renew the expired permit. [LRAPA 37-0064-3.A]

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

5. This facility is not subject to NSR or PSD for the affected criteria pollutants. The PSELs for the criteria pollutants are below the Significant Emission Rates (SERs) established in LRAPA Title 12.

Enforcement Actions

6. There have been no enforcement actions against the facility.

Source Tests

7. No source testing has been performed at this facility. Safety Data Sheets (SDS), Certified Product Data Sheets and material usage are used to determine the facility’s VOC and HAP(s) emissions.

Hazardous Air Pollutants

8. The total HAP emissions for 2015 was 1.42 tons, with 4,4'-diphenylmethane diisocyanate (MDI) as the highest single HAP at 0.82 tons. A summary of the total and individual HAP emissions for the 2015 reporting year is detailed in the table below.

Hazardous Air Pollutants	2015 Annual Emission Rate (tons/year)
Ethylene Glycol	0.03
Glycol Ethers	0.50
Methanol	0.06
4,4'-diphenylmethane diisocyanate (MDI)	0.82
Total	1.42

9. A major source of HAP is defined as 10 tons per year of any single HAP and 25 tons per year of the combination of all HAP. During the renewal process it was discovered that, as an area source of HAP and due to the usage of chromium and benzene containing compounds, the facility is subject to the National Standard for Hazardous Air Pollutants (NESHAP) Subpart CCCCCC for Paints and Allied Products Manufacturing. The permit contains the requirements for Subpart CCCCCC.
10. Calculations were conducted using TANKS 4.09D to estimate the MDI emissions from the breathing and working losses of the exterior storage tanks. The emissions were determined to be negligible based on annual material throughput.

Plant Site Emission Limits (PSELs) Information

11. The PSELs restrict emissions from the facility to the Generic PSEL limits of 39 tons per year of Volatile Organic Compounds (VOC), 9 tons per year for any single Hazardous Air Pollutant (HAP), and 24 tons per year for total HAP. [LRAPA 42-0040 and 42-0060]

**Annual Plant Site Emission Limits (PSELs)
 12-month rolling**

Pollutant	Limit	Units
VOC	39	Tons per year
Single HAP	9	
Total HAP	24	

12. Due to the emergency generator's classification as a "categorically insignificant activity," calculations of the pollutant emissions from the emergency generator are not required to establish compliance with the PSELs. [LRAPA 12-005 and 42-0070-1]

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

Pollutant	Baseline Emissions (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	Change in PSEL (tons/yr)	Increase From Baseline (tons/yr)	SER (tons/yr)
PM	0	24	de minimis	removed	0	25
PM ₁₀	0	14	de minimis	removed	0	15
PM _{2.5}	N/A	9	de minimis	removed	N/A	10
CO	0	N/A	de minimis	0	0	100
NO _x	0	N/A	de minimis	0	0	40
SO _x	0	N/A	de minimis	0	0	40
VOC	0	39	39	0	39	40

13. The BER has been set at zero (0) tons per year for all pollutants, with the exception of PM_{2.5} as specified in the “baseline” definition in LRAPA Title 12, since this facility was not in operation during the 1978 baseline year.
14. This permit action will remove the previously assigned PSELs for PM, PM₁₀ and PM_{2.5} because the facility’s potential to emit for these criteria pollutants is below the de minimis level. The emissions calculation sheet is attached to this review report.
15. The facility has the potential to emit over the de minimis levels for VOC, Single HAP and Combined HAP, so the proposed PSELs are included at the Generic PSEL as defined in LRAPA Title 12.
16. The PSEL increase over the baseline is less than the SER, as defined in LRAPA Title 12 for all criteria pollutants, so no further air quality analysis is required.

Performance Standards and Limitations

17. The facility is subject to the visible emissions standards in OAR 340-208-0110(4) and the particulate grain-loading standard in OAR 340-226-0210(b)(B) because DEQ adopted versions of these rules on April 16, 2015 that were determined to be more stringent than the existing LRAPA versions of these rules (LRAPA 32-010 and 32-015, respectively). The facility is subject to the highest and best requirement of LRAPA 32-005. Operation of well-maintained dust collectors should assure compliance with the grain loading and visible emissions limits. The permittee is also required to conduct inspections and maintenance of the equipment to assure compliance with the highest and best requirement.
18. The facility is subject to the PSEL rules in LRAPA 42-0040 and 42-0060. To assure compliance with the PSEL, detailed records are required to be maintained which demonstrate that the emissions of VOC and HAPs are below the established limits.

Monitoring, Recordkeeping and Reporting

19. Records of continuous compliance are required to be maintained for a period of at least five (5) years at the plant site. [LRAPA 35-0160 and 42-0080]
20. The facility is required to record all inspections and maintenance of air pollution control equipment including the dust collectors. The facility is also 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. 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.
21. By **February 15th of each year**, the facility is required to submit an annual report. The report will contain the rolling 12-month emission estimations for total VOC, total HAP and individual HAP totals. The report will also contain an Annual Compliance Certification Report if deviations from the requirements of Subpart CCCCCC occur.
22. In addition, and/or including the above requirements, the facility is required to implement and maintain 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.

Public Notice

23. The draft permit was on public notice from January 24, 2017 to February 28, 2017. No written comments were submitted during the 30-day comment period.

KE/CMW
3/1/2017

Emission Calculation Sheet

2015 Annual Report VOC Emissions

Coating or Solvent		Density	VOC Content	Emission Factor	ton/yr
Manufacturer and/or Product Type	Amount Used (gal)	lb/gal	% wt. or vol.		
2-ethyl-1,3-hexane-diol	11102	7.83	100%	0.015	0.65
Ethylene glycol	382	9.25	100%	0.015	0.03
Glycol ether DPM	125	7.91	100%	0.015	0.007
Glycol ether PM	6186	7.66	100%	0.015	0.36
Glycol ether category N230	2523	7.50	99%	0.015	0.14
Propylene glycol	4041	8.66	100%	0.015	0.26
Solvent naphtha	3417	6.50	100%	0.015	0.17
Methanol	1317	6.58	100%	0.015	0.06
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	471	7.91	100%	0.015	0.03
4,4'-diphenylmethane diisocyanate MDI	106883	10.25	100%	0.0015	0.82
Total VOC					2.53

2015 Annual Report 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	14212	0.28	0.28	0.28

¹NOTE: Product throughput value provided by the facility.

²NOTE: Emissions are under the de minimis value of 1 ton per year. No PSELs for particulate matter (PM), PM₁₀ or PM_{2.5} are required.

Emission Calculation Sheet Continued

Emergency Generator Potential to Emit

Number of Generators	1
Make	Generac
Model	7.5DMTA
Build Date	2005
Maximum Engine Power¹	150 kW
	201 HP
Displacement	7.5 liters

Maximum Gallons/hr	12
Maximum Hours Operated	50

Generator Emissions Estimate²		
NO _x emissions	0.18	tons/50 hours
CO emissions	0.04	tons/50 hours
VOC emissions	0.01	tons/50 hours
PM emissions	0.01	tons/50 hours
PM ₁₀ emissions	0.01	tons/50 hours
PM _{2.5} emissions	0.01	tons/50 hours
SO ₂ emissions	0.01	tons/50 hours

¹NOTE: The aggregate horsepower rating of the emergency generator is less than 3000 HP, meeting the definition of a "categorically insignificant activity." [OAR 340-200-0020(23)(uu)]

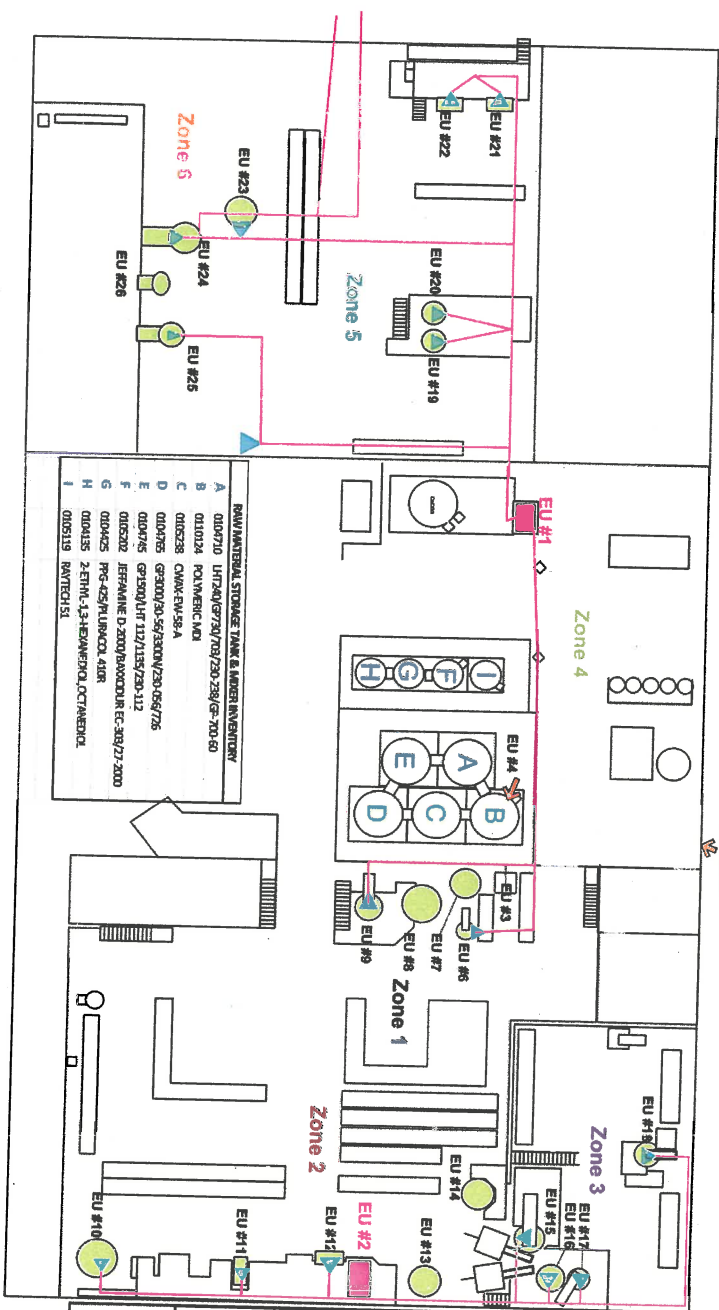
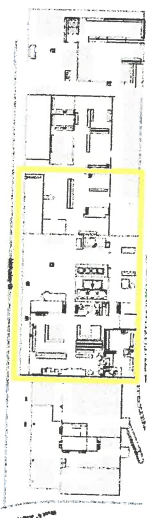
²NOTE: The estimated emissions of all regulated pollutants do not exceed the de minimis level, based on the expected maximum annual operation of the emergency generator.

Emergency Generator Emission Factors

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

Map of Emissions Sources
 Northwest Operations (Site 10)
 Willamette Valley Company
 Simple Air Contaminant Discharge Permit #208935

▲ Dust collection input
 — Dust conveyance
 ● Mixing vessel



RESIN MATERIAL STORAGE TANK & MIXER INVENTORY

A	0104710	LHT24/6720/703/230/238/GR-700-50
B	0101124	POLYURETHANE MDI
C	0100288	CHALK/EP/55A
D	0100705	GR300/20-55/300W/230/55A/75
E	0104745	GR300/LHT 112/1153/230-112
F	0105202	JEFFAMINE D-2000/BAKXODUR EC-318/27-200
G	0104425	PPG-652/TURKOCOL 438R
H	0104355	2-ETHYL-1,3-DIISOCYANATE/OCTAMEROL
I	0105119	RAVTECH SI

ZONE 6	ZONE 5	ZONE 4	ZONE 3	ZONE 2	ZONE 1
EU #23	EU #19	EU #01	EU #14	EU #10	EU #03
EU #24	EU #20	EU #04	EU #15	EU #11	EU #06
EU #25	EU #21	EU #05	EU #16	EU #12	EU #07
EU #26	EU #22	EU #08	EU #17	EU #13	EU #08
			EU #18		EU #09
					EU #10
					EU #11
					EU #12
					EU #13
					EU #14
					EU #15
					EU #16
					EU #17
					EU #18
					EU #19
					EU #20
					EU #21
					EU #22
					EU #23
					EU #24
					EU #25
					EU #26

S:\Environmental Work Files\Air Quality\Site 10\Map\2015 - Simple ACDP Sources map.vsd
 Revised July 2016