Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit

Review Report

Peterson Pacific Corporation **Permit No. 206442**
dba Astec Industries Eugene – Airport Road
29408 & 29414 Airport Road
Eugene, OR 97402
Website: https://www.astecindustries.com/

Source Information:

Primary SIC	3531 – Construction Machinery
Secondary SIC	--
Primary NAICS	333120 – Construction Machinery Manufacturing
Secondary NAICS	--
Source Categories (LRAPA title 37, Table 1)	B.69: Surface Coating Operations: coating operations whose actual or expected usage of coating materials is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coatings B.78: Metal fabrication and finishing operations subject to an area source NESHAP under title 44
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

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

Reporting Requirements

Annual Report (due date)	February 15	Monthly Report (due dates)	N
SACC (due date)	N	Excess Emissions Report	Y
GHG Report (due date)	N	Other Reports (due date) - Subpart 6X Annual Report	February 15
Quarterly Report (due date)	N		

Air Programs

NSPS (list subparts)	N	Prevention of Significant Deterioration (PSD)	N
NESHAP (list subparts)	A, XXXXXX	Acid Rain	N
CAM	N	Clean Air Mercury Rule (CAMR)	N
Regional Haze (RH)	N	TACT	N
Synthetic Minor (SM)	N	>20 Megawatts	N
SM-80	N		
Title V	N		
Part 68 Risk Management	N		
ACDP (SIP)	N		
Major FHAP Source	N		
Federal Major Source	N		
NA New Source Review (NSR)	N		

Permittee Identification

1. Peterson Pacific Corporation dba Astec Industries Eugene – Airport Road ('the facility') operates a heavy equipment manufacturing facility at 29408 and 29414 Airport Road in Eugene, Oregon.

General Background

2. The facility manufactures heavy equipment used in the logging and wood recycling industries. The significant emission units at the facility include four (4) spray booths for painting manufactured equipment, three (3) burn tables, a plasma punch, and general welding activities. The particulate matter emissions from paint overspray in the spray booths are controlled by dry filters. The particulate matter emissions from emission unit (EU) EU: BT-A – Burn Table (Messer) and EU: BT-C – Plasma Punch (Whitney) are controlled by baghouses. The particulate matter emissions from EU: BT-D – Burn Table (Kinetic 5000) and EU: BT-E – Burn Table (Kinetic 5000) are controlled by cartridge filters. EU: CNC-A – CNC Machine (C.R. Onsrud) and EU: BT-B – Burn Table (Kinetic) were permanently removed in 2022. The facility was built in 1993.

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 November 19, 2015 and was scheduled to expire on November 19, 2020. As the facility submitted a timely renewal application on July 13, 2020, the expired permit will remain in effect until final action has been taken on the renewal application. Because the actual emissions from calendar year 2021 were less than 10 tons/year for each criteria pollutant, the permit action is considered a Simple "low" ACDP renewal under LRAPA 37-0064(2)(a)

Attainment Status

4. The facility is located in an area that has been designated as attainment or unclassified for all criteria pollutants. The facility is located outside the Eugene-Springfield UGB as defined in LRAPA 29-0010 designating the CO and PM_{10} maintenance areas. The facility is located inside the Eugene-Springfield UGB as described in the currently acknowledged Eugene-Springfield Metropolitan Area General Plan, as amended.

Permitting History

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

Date(s) Approved/Valid	Permit Action Type	Description
12/13/2001-12/12/2006	Synthetic Minor ACDP	Initial air permit
06/29/2010-06/29/2015	Simple ACDP	Renewal of air permit, including installation of EUs: BT-A and BT-C
10/27/2011	Addendum No. 1	Non NSR/PSD basic technical permit modification
11/19/2015-11/19/2020	Simple ACDP	Renewal of air permit
08/19/2022	Approval to Construct NC-200042-A22	Installation of burn tables EUs: BT-D and BT-E
08/31/2022	Approval to Construct NC-200042-B22	Installation of the fourth spray booth EU: SB-D
09/08/2022	Addendum No. 1	Simple technical permit modification
Upon Issuance	Simple ACDP	Renewal of air permit

Compliance History

6. LRAPA has initiated the following enforcement actions against this facility

6a. Notice of Non-Compliance (NON) 04-2703: On June 22, 2004, LRAPA issued a Notice of Non-Compliance (NON) No. 04-2703 to Peterson Pacific for permit violations of

Condition 3, monitoring for HAP limits, Condition 10, exceeding the plant site emission limits (PSEL), and Condition 12 and 13 regarding monitoring, recordkeeping and reporting. The PSEL exceedance was addressed in NON/NCP No. 05-2816

6b. Notice of Civil Penalty (NCP) No. 05-2816: On October 5, 2005 LRAPA issued a NCP No. 05-2816 in response to Notice of Non-Compliance (NON) No. 05-2816. A penalty in the amount of $1,200 was imposed and paid for the violations of federal HAP synthetic minor limitations. Peterson emitted 9.86 tons of methyl ethyl ketone for the period of January 1, 2003 through December 31, 2003 against a permit limit of 9 tons.

Source Testing

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

Emission Unit Description

8. The emission units regulated by this permit are the following:

Emission Unit	Description	Pollution Control Device	Year Installed
SB-A	Spray Booth (East)	Spray booth filter system	1995
SB-B	Spray Booth (Open)	Spray booth filter system	1999
SB-C	Spray Booth (West)	Spray booth filter system	1999
SB-D	Spray Booth (Southwest)	Spray booth filter system	2022
BT-A	Burn Table (Messer)	Baghouse	2008
BT-C	Plasma Punch (Whitney)	Baghouse	2007
BT-D	Burn Table (Kinetic 5000)	Cartridge Filter	2022
BT-E	Burn Table (Kinetic 5000)	Cartridge Filter	2022
W	Welding Operations	Not Applicable	1993

Emission Limitations

9. The facility is subject to the general requirements for fugitive emissions under LRAPA 48-015. The facility must not allow visible emissions to leave the property for a period or periods totaling more than 18 seconds in a six (6) minute period. The facility must follow, but is not limited to, the list of reasonable precautions under LRAPA 48-015(1)(a)-(g). When fugitive particulate emissions escape from an air contaminant source, LRAPA may order the facility to abate the emissions. If requested by LRAPA, the facility must develop a fugitive emission control plan.

10. The facility is subject to the visible emission limitations under LRAPA 32-010(3). For sources, other than wood-fired boilers, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour.

11. The non-fuel burning equipment at this source that emit particulate matter are subject to the following particulate matter emission limitations under LRAPA 32-015(2):

11a. 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; and

11b. For sources installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot.

12. Each emission unit at the facility is subject to the process weight rate emission limitations under LRAPA 32-045(1). No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in LRAPA 32-8010,

for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials.

Typically Achievable Control Technology (TACT)

13. LRAPA 32-008(1) requires an existing unit at a facility to meet TACT if the emission unit meets the following criteria: The emission unit is not already subject to emission standards for the regulated pollutant under LRAPA title 30, title 32, title 33, title 38, title 39 or title 46 at the time TACT is required; the source is required to have a permit; the emission unit has emissions of criteria pollutants equal to or greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant; and LRAPA determines that air pollution control devices and emission reduction processes in use for the emissions do not represent TACT and that further emission control is necessary to address documented nuisance conditions, address an increase in emissions, ensure that the source is in compliance with other applicable requirements, or to protect public health or welfare, or the environment,

    13a. For the existing burn tables (EUs: BT-A and BT-B), the facility uses baghouses to control particulate matter emissions. The facility proposes no control for NO_X emissions because there is no practicable way to control this pollutant for these processes. LRAPA believes this represents TACT for these processes.
    13b. For the existing spray booths (EU: SB-A through SB-C), the facility uses dry filters to control particulate matter emissions. The facility proposes no control for VOC emissions because it is not economically feasible to control this pollutant from this process. The facility does use high transfer efficiency paint guns to reduce the amount of paint required in the process versus conventional spray paint guns. LRAPA believes this represents TACT for these processes.

14. LRAPA 32-008(2) requires new or modified emission units to meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR or Type A State NSR in LRAPA title 38, and applicable NSPS in LRAPA title 46, or any other standard applicable to only new or modified sources in LRAPA title 32, title 33, or title 39 for the regulated pollutant; the source is required to have a permit; if new, the emission unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emission 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.

    14a. For the new burn tables (EUs: BT-D and BT-E), the facility proposes to use cartridge filters to control particulate matter emissions. The facility proposes no control for NO_X emissions because there is no practicable way to control this pollutant for these processes. LRAPA believes this proposal represents TACT for these processes.
    14b. For the new spray booth (EU: SB-D), the facility proposes to use dry filters to control particulate matter emissions. The facility proposes no control for VOC emissions because it is not economically feasible to control this pollutant from this process. The facility does use high transfer efficiency paint guns to reduce the amount of paint required in the process versus conventional spray paint guns. LRAPA believes this proposal represents TACT for these processes.

Plant Site Emission Limits (PSELs)

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

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

15a. The facility does not have a baseline emission rate for pollutants other than $PM_{2.5}$ and GHGs because the facility was not in operation during either the 1977 or 1978 baseline year. A baseline emission rate is not established for $PM_{2.5}$ in accordance with LRAPA 42-0048(3). The facility has no baseline for GHGs because the facility did not request a baseline for this pollutant.

15b. The netting basis for all pollutants is 0 (zero) in accordance with LRAPA 42-0046(4) and 42-0040(2)&(3).

15c. The PSELs for PM, PM_{10}, $PM_{2.5}$, NO_X and VOC are set at the generic PSEL level in accordance with LRAPA 37-0064(3)(b). No PSELs are set for CO, SO_2 and GHGs in accordance with LRAPA 42-0020(3)(a) because these pollutants are emitted below the de minimis as defined in LRAPA title 12.

15d. Generic PSELs were added for PM, PM_{10}, $PM_{2.5}$, and NO_X in Addendum 1 to the Simple ACDP issued on September 9, 2022, because the potential emissions for these pollutants from the facility were no longer de minimis. There are no changes to the VOC PSEL in the proposed Simple ACDP as compared to the previous Simple ACDP issued to this facility.

15e. The baseline year, netting basis, and SER are not applicable for limiting federal HAPs. There are no changes to the PSELs for HAPs in the proposed Simple ACDP as compared to the most recent Simple ACDP issued to this facility.

Federal Hazardous Air Pollutants/Toxic Air Contaminants

16. The facility currently has PSELs for federal HAPs that limit emissions to no more than nine (9) tons per year for an individual federal HAP and 24 tons per year for the aggregate of all federal HAPs. Therefore, the facility is considered a minor or area source of federal HAPs.

17. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and is, therefore, not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in the rule. All federal HAPs are on the list of approximately 600 toxic air contaminants. After the source is notified by LRAPA, they must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

18. Provided below is a summary of the federal HAP and CAO TAC actual emission estimates based on the potential emissions as calculated in the emission detail sheets. The highest potential emission for an individual HAP is manganese at 0.54 TPY. The potential emissions in aggregate of all federal HAPs is 0.69 TPY.

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Organics				
Ethylbenzene	100-41-4	3.8E-02	Yes	Yes
Toluene	108-88-3	6.2E-02	Yes	Yes
Xylene	1330-20-7	5.0E-02	Yes	Yes
Acetone	67-64-1	4.82	No	Yes
n-Butyl Alcohol	71-36-3	8.1E-03	No	Yes
Methyl Ethyl Ketone	78-93-3	1.5E-02	No	Yes
iso-Propyl Alcohol	67-63-0	0.35	No	Yes
Propylene Glycol Methyl Ether	107-98-2	0.31	No	Yes
Propylene Glycol Methyl Ether Acetate	108-65-6	1.39	No	Yes
1,2,4-Trimethylbenzene	95-63-6	1.0E-03	No	Yes
Metals				
Chromium, Total	7440-47-3	5.8E-04	Yes	No
Chromium, Hexavalent	18540-29-9	0.0E+00	Yes	Yes
Cobalt	7440-48-4	4.5E-04	Yes	Yes
Copper	7440-50-8	1.2E-02	No	Yes
Manganese	7439-96-5	0.54	Yes	Yes
Nickel	7440-02-0	8.4E-04	Yes	Yes
Zinc	7440-66-6	4.9E-04	No	Yes

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 2020, this facility reported the release of 189.47 pounds per year of manganese (7439-96-5) to the atmosphere for stack or fugitive sources.

New Source Performance Standards (NSPSs)

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

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

21a. 40 CFR Part 63 subpart MMMM - National Emission Standards for Hazardous Air Pollutants for Surface Coating of miscellaneous Metal Parts and Products is not applicable to the facility because the facility is not a major source of HAPs.

21b. 40 CFR Part 63 subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources is not applicable to the facility because the facility does not use methylene chloride for paint stripping, it is not an autobody refinishing operation, and the surface coatings used at the facility do not contain the target HAPs.

22. 40 CFR Part 63 subpart XXXXXX (6X) - National Emission Standards for Hazardous Air Pollutants: Nine Metal Fabrication and Finishing Source Categories is applicable to this facility because the facility operations are in one of the nine source categories listed in 40 CFR 63.11514(a) and the facility has at least one of the sources listed in 40 CFR 63.11514(b). The affected sources at the facility include machining operations (i.e.: burn tables) and welding operations which use materials that contain cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form, with the exception of lead. The facility does have spray painting operations, but the facility claims that none of their paints contain the target HAPs listed above. LRAPA confirmed that none of the paints applied in 2021 contained the target HAPs

23. The 40 CFR 63 subpart 6X requirements that are applicable to machining operations and welding operations at the facility are identified in the following table:

40 CFR 63 subpart XXXXXX Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11514	Applicability	Yes	Requirement added to document non-applicability to spray booths.	17
63.11515	Compliance dates	Yes	None.	NA
63.11516	Standards and management practices	Yes	None.	18
63.11517	Monitoring requirements	Yes	None.	19
63.11518	Reserved	No	None.	NA
63.11519	Notification, recordkeeping, and reporting requirements	Yes	LRAPA has approved a February 15 submittal date rather than January 31 under 40 CFR 63.11519(b)(2)(iii)	20
63.11520	Reserved	No	None.	NA
63.11521	Who implements and enforces?	Yes	None.	NA
63.11522	Definitions	Yes	None.	NA
63.11523	General provisions	Yes	None.	21

Recordkeeping Requirements

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

    24a. VOC/HAP-containing materials include, but are not limited to, coatings, lacquers, thinners, stains, topcoats, solvents, adhesives, cleaning, and wash-off materials.

    24b. The density and VOC/HAP content information must be supplied from CPDS or SDS provided by the manufacturer/supplier of the VOC/HAP containing material.

Activity	Parameter	Units	Minimum Recording Frequency
PSEL-Related Recordkeeping			
Spray booth coating and solvent SDS	Each coating and solvent	NA	Maintain documentation
VOC/HAP-containing material Usage	Material name and usage	Gallons	Monthly
VOC/HAP-containing material Usage	Density of material	Pounds per gallon	Each coating and solvent
VOC- containing material usage	VOC content	% by weight	Each coating and solvent
HAP- containing material usage	Individual HAP content	% by weight	Each coating and solvent
Welding rod/wire usage	Rod/wire type and usage	Pounds	Monthly
Spray booth filter particulate matter control efficiency	Control efficiency	%	Maintain documentation from each filter manufacturer
Spray booth filter replacement	Occurrence	NA	Upon Replacement
Spray booth training	Training logs / certifications	NA	Maintain documentation of training
Burn table operation	Hours of operation by unit	Hours	Monthly
40 CFR 63 Subpart 6X Recordkeeping			
Applicability determinations for equipment potentially subject to 40 CFR 63 subpart 6X	NA	NA	Maintain documentation
Visual determinations of fugitive emissions records, as applicable.	Opacity results	NA	Daily, weekly, monthly or quarterly
Visual determinations of emissions opacity records, as applicable.	Opacity results	NA	Daily, weekly, monthly or quarterly
Records of the manufacturer's specifications for control devices, as applicable.	NA	NA	Maintain documentation
Site-Specific Welding Emissions Management Plan, as applicable.	NA	NA	Maintain documentation

Activity	Parameter	Units	Minimum Recording Frequency
Manufacturer's instructions for equipment subject to 40 CFR 63 subpart 6X	NA	NA	Maintain documentation
Welding rod usage containing MFHAPs, as applicable.	Rod/wire type and usage	Pounds	12-month rolling
General Recordkeeping			
Complaints from the public	Log each complaint and the resolution	NA	Upon receipt
Upset log of all planned and unplanned excess emissions	See Condition G15	NA	Per occurrence

Reporting Requirements

25. The facility must submit to LRAPA the following reports by no later than the dates indicated in the table below:

Report	Reporting Period	Due Date
PSEL pollutant emissions as calculated according to Conditions 5 through 8 of the permit, including the supporting process parameter and emission factor information. The annual report must include the annual usage of welding rod/wire.	Annual	February 15
Annual Certification and Compliance Report for 40 CFR 63 subpart 6X.	Annual	February 15
A summary of maintenance and repairs performed on any pollution control devices at the facility.	Annual	February 15
A summary of complaints from the public and the resolution, as applicable.	Annual	February 15
The upset log information required by Condition G13 of the permit, if required by Condition G13.	Annual	February 15

26. The permittee is not subject to greenhouse gas reporting under OAR 340 Division 215 because actual greenhouse gas emissions are less than 2,500 metric tons (2,756 short tons) of CO_2 equivalents per year. If the source ever emits more than this amount, they will be required to report greenhouse gas emissions.

Public Notice

27. The draft permit was on public notice from October 18, 2022 to November 17, 2022. Pursuant to LRAPA 37-0064(4), issuance of a renewed Simple ACDP requires public notice as a Category II permit action in accordance with LRAPA 31-0030(3)(b), which requires LRAPA to provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments.

    No comments were submitted during the 30-day comment period.

JJW/rr
11/18/2022

Peterson Pacific - 206442
Emission Detail Sheets
Facility Potential Emissions Summary

Criteria Pollutant Emissions

PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO_2 (TPY)	NO_x (TPY)	CO (TPY)	VOC (TPY)*	GHGs (TPY)
4	4	4	0	6	0	14	0

FHAP/TAC Emissions

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Organics				
Ethylbenzene	100-41-4	3.8E-02	Yes	Yes
Toluene	108-88-3	6.2E-02	Yes	Yes
Xylene	1330-20-7	5.0E-02	Yes	Yes
Acetone	67-64-1	4.82	No	Yes
n-Butyl Alcohol	71-36-3	8.1E-03	No	Yes
Methyl Ethyl Ketone	78-93-3	1.5E-02	No	Yes
iso-Propyl Alcohol	67-63-0	0.35	No	Yes
Propylene Glycol Methyl Ether	107-98-2	0.31	No	Yes
Propylene Glycol Methyl Ether Acetate	108-65-6	1.39	No	Yes
1,2,4-Trimethylbenzene	95-63-6	1.0E-03	No	Yes
Metals				
Chromium, Total	7440-47-3	5.8E-04	Yes	No
Chromium, Hexavalent	18540-29-9	0.0E+00	Yes	Yes
Cobalt	7440-48-4	4.5E-04	Yes	Yes
Copper	7440-50-8	1.2E-02	No	Yes
Lead	7439-92-1	0.0E+00	Yes	Yes
Manganese	7439-96-5	0.54	Yes	Yes
Nickel	7440-02-0	8.4E-04	Yes	Yes
Zinc	7440-66-6	4.9E-04	No	Yes
Total Emissions (TPY) =		7.6	0.69	7.6
Max Individual FHAP (TPY) =			0.54	

Note:
Elemental lead is not a federal HAP.

Peterson Pacific - 206442
Emission Detail Sheets
Particulate Matter Emissions from Paint Booth Overspray

65%	**= Minimum Coating Transfer Efficiency**
98.81%	**= Minimum Filter PM Removal Efficiency**
2.0	**= Safety Factor**

Manufacturer	Product Type	Product Code	Gallons Used	Coating (lb/gal)	Pounds Used	VOC (lb/gal)	VOC (% wt.)	Solids (lb/gal)	Solids (% wt)	Solids Usage (lbs/yr)	2021 PM Emissions (lbs)	Potential PM Emissions (lbs)
Axalta	Activator for Imron 2.8 PR	FG-062	148.75	9.04	1,345	2.267		6.773		1,007	4.20	8.39
Axalta	Imron 3.5HG Plus Peterson Pacific Blue	33-952926	408.8	8.84	3,614		45.39%		54.61%	1,973	8.22	16.44
Axalta	Imron Accelerator	VG-805	26.75	8.18	219	8.021		0.159		4	1.8E-02	0.04
Axalta	Retarder	Y32401	354	7.851	2,779	7.851		0		0	0.0E+00	0.00
Axalta	Imron Accelerator	189S	45.75	8.13	372	8.116		0.014		1	2.7E-03	0.01
Axalta	Metalok Pre-Treatment	235S	327	10.49	3,430	1.281		9.209		3,011	12.54	25.08
Axalta	Metalok Activator	236S	171	7.27	1,243	5.235		2.035		348	1.45	2.90
Axalta	Imron 3.5 HG + High Gloss Polyurethane - White	33-24861	119	10.96	1,304	3.63		7.33		872	3.63	7.27
Axalta	Imron 3.5 HG + High Gloss Polyurethane - Black	33-24926	139	8.33	1,158	3.894		4.436		617	2.57	5.14
Axalta	Polyurethane Primer - ANSI 61 Gray	62-1072	710	10.83	7,689	2.176			63.86%	4,910	20.45	40.90
Axalta	Imron Activator	9T00-A	482.25	9.74	4,697	0.008		9.732		4,693	19.55	39.09
Axalta	Reducer GL	441-60	259	6.61	1,712	0			0.00%	0	0.0E+00	0.00
Axalta	Imron 3.5 HG+ Polyurethane High Gloss Mix	RH	1293	9.6	12,413	3.32		6.28		8,120	33.82	67.64
Axalta	Activator for Corlar R 2.8 HG	VG-026	13	7.78	101	2.526			62.79%	64	0.26	0.53
									Total PM Emissions (TPY) =		0.05	0.11

HAP/TAC Emissions

Manufacturer	Product Type	Product Code	Oregon Toxic Air Contaminants: Zinc Phosphate (7779-90-0) % wt.	Zinc Phosphate (7779-90-0) lbs/yr
Axalta	Activator for Imron 2.8 PR	FG-062		0.00
Axalta	Imron 3.5HG Plus Peterson Pacific Blue	33-952926		0.00
Axalta	Imron Accelerator	VG-805		0.00
Axalta	Retarder	Y32401		0.00
Axalta	Imron Accelerator	189S		0.00
Axalta	Metalok Pre-Treatment	235S		0.00
Axalta	Metalok Activator	236S		0.00
Axalta	Imron 3.5 HG + High Gloss Polyurethane - White	33-24861		0.00
Axalta	Imron 3.5 HG + High Gloss Polyurethane - Black	33-24926		0.00
Axalta	Polyurethane Primer - ANSI 61 Gray	62-1072	3.00%	1.92
Axalta	Imron Activator	9T00-A		0.00
Axalta	Reducer GL	441-60		0.00
Axalta	Imron 3.5 HG+ Polyurethane High Gloss Mix	RH		0.00
Axalta	Activator for Corlar R 2.8 HG	VG-026		0.00
			TPY =	**4.9E-04**

Note:
Potential emissions are based on scaling 2021 actual usage by a safety factor.
Products using calculated solids pounds per gallon are conservatively estimating overspray emissions.
Zinc phophate represented as zinc.

Peterson Pacific - 206442
Emission Detail Sheets
VOC and HAP/TAC Emissions from Paint Booths

2.0 **= Safety Factor**

VOC Emissions

Manufacturer	Product Type	Product Code	Gallons Used	Coating (lb/gal)	Pounds Used	VOC (lb/gal)	VOC (% wt.)	2021 VOC Emissions (lbs)	VOC PTE (lbs)
Axalta	Activator for Imron 2.8 PR	FG-062	148.75	9.04	1,345	2.267		337	674
Axalta	Imron 3.5HG Plus Peterson Pacific Blue	RH-952926	408.8	8.84	3,614		45.39%	1,640	3,281
Axalta	Imron Accelerator	VG-805	26.75	8.18	219	8.021		215	429
Axalta	Retarder	Y32401	354	7.851	2,779	7.851		2,779	5,559
Axalta	Imron Accelerator	189S	45.75	8.13	372	8.116		371	743
Axalta	Metalok Pre-Treatment	235S	327	10.49	3,430	1.281		419	838
Axalta	Metalok Activator	236S	171	7.27	1,243	5.235		895	1,790
Axalta	Imron 3.5 HG + High Gloss Polyurethane - White	33-24861	119	10.96	1,304	3.630		432	864
Axalta	Imron 3.5 HG + High Gloss Polyurethane - Black	33-24926	139	8.33	1,158	3.894		541	1,083
Axalta	Polyurethane Primer - ANSI 61 Gray	62-1072	710	10.83	7,689	2.176		1,545	3,090
Axalta	Imron Activator	9T00-A	482.25	9.74	4,697	0.008		4	8
Axalta	Reducer GL	441-60	259	6.61	1,712	0.000		0	0
Axalta	Imron 3.5 HG+ Polyurethane High Gloss Mix	RH	1,293	9.60	12,413	3.32		4,293	8,586
Axalta	Activator for Corlar R 2.8 HG	VG-026	13	7.78	101	2.526		33	66
		Total =	**4,497**		**Total VOC Emissions (TPY) =**			**6.75**	**13.50**

HAP/TAC Emissions

			Federal Hazardous Air Pollutants						Oregon Toxic Air Contaminants													
			Ethylbenzene (100-41-4)		Toluene (108-88-3)		Xylene (1330-20-7)		Acetone (67-64-1)		n-Butyl Alcohol (71-36-3)		Methyl Ethyl Ketone (78-93-3)		iso-Propyl Alcohol (67-63-0)		Propylene Glycol Methyl Ether (107-98-2)		Propylene Glycol Methyl Ether Acetate (108-65-6)		1,2,4-Trimethylbenzene (95-63-6)		Hexamethylene diisocyanate (28182-81-2)	
Manufacturer	Product Type	Product Code	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr	% wt.	lbs/yr
Axalta	Activator for Imron 2.8 PR	FG-062		0		0	0.00%	0		0		0		0	0.00%	0		0	10.00%	269		0	75.00%	2,017
Axalta	Imron 3.5HG Plus Peterson Pacific Blue	33-952926		0		0		0		0		0		0	1.20%	87		0		0		0		0
Axalta	Imron Accelerator	VG-805		0		0		0		0		0		0		0		0		0		0		0
Axalta	Retarder	Y32401	1.00%	56		0	1.80%	100		0		0		0		0		0		0		0		0
Axalta	Imron Accelerator	189S		0		0		0		0		0		0		0		0		0		0		0
Axalta	Metalok Pre-Treatment	235S	0.30%	21		0		0	32.00%	2,195		0		0		0		0	3.00%	206		0		0
Axalta	Metalok Activator	236S		0		0		0		0		0		0	25.00%	622	25.00%	622		0		0		0
Axalta	Imron 3.5 HG + High Gloss Polyurethane - White	33-24861		0		0		0		0		0		0		0		0		0		0		0
Axalta	Imron 3.5 HG + High Gloss Polyurethane - Black	33-24926		0		0		0		0		0		0		0		0		0		0		0
Axalta	Polyurethane Primer - ANSI 61 Gray	62-1072		0	0.80%	123		0	26.00%	3,998		0		0		0		0	15.00%	2,307		0		0
Axalta	Imron Activator	9T00-A		0		0		0		0		0		0		0		0		0		0	90.00%	8,455
Axalta	Reducer GL	441-60		0		0		0	100.00%	3,424		0		0		0		0		0		0		0
Axalta	Imron 3.5 HG+ Polyurethane High Gloss Mix	RH		0		0		0		0		0		0		0		0		0		0		0
Axalta	Activator for Corlar R 2.8 HG	VG-026		0		0		0	15.00%	30	8.00%	16	15.00%	30		0		0		0	1.00%	2		0
			TPY =	**0.04**	*TPY =*	**0.06**	*TPY =*	**0.05**	*TPY =*	**4.82**	*TPY =*	**0.01**	*TPY =*	**0.02**	*TPY =*	**0.35**	*TPY =*	**0.31**	*TPY =*	**1.39**	*TPY =*	**0.00**	*TPY =*	**5.24**

Max Individual Federal HAPs (TPY) = 0.06
Total Federal HAPs (TPY) = 0.15

Note:
Potential emissions are based on scaling 2021 actual usage by a safety factor.

Peterson Pacific - 206442
Emission Detail Sheets
Burn Table Emissions

1.5 **= Safety Factor**

PM/PM_{10}/$PM_{2.5}$ Emissions

Unit Identification	Cutting Technique	Metal Type	Metal Thickness (Inches)	Kerf (Inches)	Metal Cutting Speed (IPM)	Control Device Type	% Control Efficiency	Specific Gravity	Density Conversion (lb/in^3)	Fume Generated (% of Particulate Generated)	$PM/PM_{2.5}/PM_{10}$ Emission Factor (lb/inch)	Metal Feed Rate (IPH)	2021 Hours of Operation	Uncontrolled Emissions (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Kinetic K5000	Dry	Mild Steel	1	0.12	80	Cartridge	85	7.83	0.28	5	1.70E-03	4800	1869.95	8.15	1.22E+00	1.71E+00
Kinetic K5000	Dry	Mild Steel	1	0.12	80	Cartridge	85	7.83	0.28	5	1.70E-03	4800	1869.95	8.15	1.22E+00	1.71E+00
Messer	Dry	Mild Steel	1.25	0.12	65	Baghouse	99.7	7.83	0.28	5	2.12E-03	3900	2738.96	8.27	2.48E-02	5.10E-02
Whitney	Dry	Mild Steel	0.25	0.12	80	Baghouse	99.7	7.83	0.28	5	4.24E-04	6900	1781.85	2.93	8.78E-03	1.17E-02
			Average	Average	Average									Total PM Emissions (TPY) =		3.49

NOx Emissions

Unit Identification	Cutting Technique	Metal Type	NOx Emission Factor (g/min)	2021 Hours of Operation	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Kinetic K5000	Dry	Mild Steel	6.83	1869.95	0.90	1.27
Kinetic K5000	Dry	Mild Steel	6.83	1869.95	0.90	1.27
Messer	Dry	Mild Steel	6.83	2738.96	0.90	1.86
Whitney	Dry	Mild Steel	6.83	1781.85	0.90	1.21
				Total NOx Emissions (TPY) =		5.60

HAP/TAC Emissions

Pollutant	CAS No.	Fume Percent	Uncontrolled Emissions (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Copper	7440-50-8	1.4%	3.85E-01	3.47E-02	4.89E-02
Manganese	7439-96-5	10%	2.75E+00	2.48E-01	3.49E-01

Fume Generation Rate/Specific Gravity Table

Metal	Dry	Semidry	Wet	Specific Gravity
Mild Steel, 8mm	5	0.5	0.05	7.83
Stainless Steel, 8mm	7	0.7	0.07	7.7
Stainless Steel, 35mm	1	0.1	0.01	7.7

NOx Emission Rate Table

Metal	Dry (l/min)	Semidry (l/min)	Wet (l/min)
Mild Steel, 8mm	4.95	2.75	1.05
Stainless Steel, 8mm	4.75	2.45	1.15
Stainless Steel, 35mm	7.4	3.9	1.95

Notes:

Emissions are based on "Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel" by Bromsen B. et al. (1994)
The calculations assume the use of air as the plasma gas. Oxygen as plasma gas lowers fume emissions by 25%. Nitrogen as plasma gas lowers NOx emissions by 20%.
NOx emissions assume NO_2 is 7.5% of the total emissions of NOx (NO and NO_2). Assumes NO has a density of 1.34 g/L and NO_2 has a density of 1.88 g/L.
Mild steel fume is 67-73% iron, 2-10% manganese, and ND-1.4% copper.
Stainless steel fume is 38-44% iron, 12-20% chromium, 4-8% nickel, 4-10% manganese, 2-6% copper and up to 1% molybdenum.
Potential emissions are based on scaling 2021 actual usage by a safety factor.
Whitney free standing cartridge type dust collector. Filter efficiency assumed to be 99.7% for particles larger thane or equal to 0.02 microns.
Messer free standing cartridge type dust collector. Filter efficiency assumed to be 99.7% for particles larger thane or equal to 0.02 microns.
Kinetic K5000 units hours of operation based on the total 2021 hours of operation of the existing Kinetic unit.

Peterson Pacific - 206442
Emission Detail Sheets
Welding Emissions

	Amount	Units
2021 Actual FCAW Welding Wire/Rod Usage =	**20.6**	**1000 lbs**
2021 Actual GMAW Welding Wire/Rod Usage =	**51.542**	**1000 lbs**
2021 Actual SAW Welding Wire/Rod Usage =	**3.1**	**1000 lbs**
Scale Up Factor =	**1.25**	

Criteria Pollutants

Pollutant	Cas No.	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Total Particulate	--	3.7E-05	0.32
PM_{10}	--	3.7E-05	0.32
$PM_{2.5}$	--	3.7E-05	0.32

2021 Welding Wire/Rod Usage By Type

		Emission Factors ($lb/10^3$ lb)						
Process	Type	Fume	Chromium	Cromium (VI)	Cobalt	Manganese	Nickel	Lead
FCAW	E71T	12.2	0.02	ND	0.01	6.62	0.04	ND
GMAW	E70S	5.2	0.01	ND	0.01	3.18	0.01	ND
SAW	EM12K	0.05	ND	ND	ND	ND	ND	ND

HAP/TAC Emissions

Pollutant	Cas No.	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Chromium (Total)	7440-47-3	6.6E-08	5.8E-04
Chromium (VI)	18540-29-9	0.0E+00	0.0E+00
Cobalt	7440-48-4	5.1E-08	4.5E-04
Manganese	7439-96-5	2.1E-05	1.9E-01
Nickel	7440-02-0	9.6E-08	8.4E-04
Lead	7439-92-1	0.0E+00	0.0E+00

Notes:

Assumes highest emitting welding wire/rod for calendar year 2021 based on welding type.
ND (No Detect) is represented as zero.
<' than the detection limit values represented as the detection limit.
Lead is assumed to be from lead compounds.
The NOx and CO emissions from welding are assumed to be negligible.
Hourly emissions are based on annual usage divided by 8760.
SAW usage includes flux.