Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit

REVIEW REPORT

Gheen Irrigation Works, Inc.
29475 Airport Road
Eugene, OR 97402
https://www.gheenirrigation.com/

Permit No. 203144

Source Information:

Primary SIC	3479
Secondary SIC	--
Primary NAICS	332812
Secondary NAICS	--

Source Categories (LRAPA title 37, Table 1)	Part B: 30: Galvanizing and Pipe Coating
Public Notice Category	III

Compliance and Emissions Monitoring Requirements:

Unassigned Emissions	N
Emission Credits	N
Special Conditions	N
Compliance Schedule	N

Source Test [date(s)]	N
COMS	N
CEMS	N
Ambient monitoring	N

Reporting Requirements

Annual Report (due date)	February 15
SACC (due date)	N
GHG Report (due date)	N
Quarterly Report (due date)	N

Monthly Report (due dates)	N
Excess Emissions Report	Y
Other Reports (due date)	N

Air Programs

NSPS (list subparts)	N
NESHAP (list subparts)	N
40 CFR part 64 Compliance Assurance Monitoring (CAM)	N
Regional Haze (RH)	N
TACT	N
40 CFR part 68 Risk Management	N
Cleaner Air Oregon (CAO)	N
Synthetic Minor (SM)	N
SM-80	N

Title V	N
Major FHAP Source	N
Federal Major Source	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

Permit Identification

1. Gheen Irrigation Works, Inc. ('Gheen Irrigation' or 'the facility') operates a powder coating facility at 29475 Airport Road in Eugene, Oregon. The facility began operation in 2008 when LRAPA initially issued an air permit to the facility.

2. The facility operates under the primary Standard Industrial Classification (SIC) code of 3479 - Coating, Engraving, and Allied Services, Not Elsewhere Classified and the primary North American Industry Classification System (NAICS) code of 332812 – Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers.

General Background

3. The facility emissions are primarily related to sandblasting, powder coating, welding, and painting activities. The facility manufactures a variety of steel irrigation fittings for commercial, agricultural, and industrial uses.

   A natural gas-fired oven with a maximum heat input of 1.5 MMBtu/hr is used to bake powder-coated products, which is a "categorically insignificant activity" as defined in LRAPA Title 12.

   For sandblasting, the facility uses GMA RoughBlast manufactured by the GMA Garnet Corp. as abrasive material and is estimated to have a 200,000 pounds of maximum annual usage.

   For powder coating operations, the facility uses Gheen Green FBE manufactured by Axalta Coating Systems, LLC as its powder coating material, and is estimated to have a 6,000 pounds of maximum annual usage.

   For surface coating activities, the facility mainly uses two types of painting materials: Crown Cold Galvanize Coating 93% Zinc Rich, manufactured by Aervoe Industries Incorporated, and Acrylic Urethane Topcoat Paint - Ultra Blue Pearl, manufactured by Summit Racing. The galvanizing coating is estimated to have a maximum annual usage of 59 gallons, and the topcoat paint is estimated to have a maximum annual usage of 472 gallons.

   The facility operates a baghouse (baghouse #1) for sandblasting activities. Another baghouse (baghouse #2) is operated in its powder coating section. Both baghouses are considered to have 99.9% control efficiency. The facility also operates an air evacuation device in its welding section, and a filter wall in its painting booths.

Reasons for Permit Action and Fee Basis

4. This permit action is a renewal for an existing Simple Air Contaminant Discharge Permit (Simple ACDP) which was issued on August 6, 2019, and expired on August 6, 2024. As the facility submitted a timely renewal application on April 8, 2024, the expired permit will remain in effect until final action has been taken on the renewal application. The renewed Simple ACDP will be valid for up to ten (10) years.

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 located inside the Eugene-Springfield Urban Growth Boundary (UGB) as defined in LRAPA 29-0010 which designates the Eugene-Springfield CO and PM_{10} maintenance areas. The facility is 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:

Date(s) Approved/Valid	Permit Action Type	Description
02/15/2008	Minimal ACDP	Initial permitting application received
10/07/2008	Minimal ACDP	Initial permit issuance
05/08/2009	Addendum	Changed permit type from Minimal to Simple in accordance with new LRAPA rules adopted October 2008
07/02/2014	Simple ACDP	Renewal
08/06/2019	Simple ACDP	Renewal
Upon Issuance	Simple ACDP	Renewal

Emission Unit Descriptions

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

Emission Unit ID	Description	Pollution Control Device (PCD) ID and Description	Installed /Last Modified
EU-1	Sandblasting	Baghouse #1	2008
EU-2	Powder Coating	Baghouse #2	2008
EU-3	Welding	Air Evacuation	2008
EU-4	Paint Booths	Filter Wall	2008

Nuisance, Deposition and Other Emission Limitations

8. Under LRAPA 49-010(1), the permittee must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

9. Under LRAPA 32-055, the permittee must not cause or permit the emission of particulate matter which is larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

10. Under LRAPA 32-090(1), the permittee must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property; such determination is to be made by LRAPA. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

11. LRAPA 48-015 was removed from this draft permit because LRAPA does not expect fugitive emissions to be an issue from the facility's operations.

Performance Standards and Limitations

12. 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 in any six-minute block average. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once per quarter. The permittee is required to take corrective action if any visible emissions

are identified and either contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan (O&M Plan) for all particulate matter emission control devices at the facility.

13. 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)(b)(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. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once per quarter. The permittee is required to take corrective action if any visible emissions are identified and either contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan (O&M Plan) for all particulate matter emission control devices at the facility.

14. The control equipment at the facility must be operated and maintained at the highest and best practicable treatment and control of air contaminant emissions so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling, and other deleterious factors at the lowest possible levels under LRAPA 32-005(1). Compliance for the control equipment at the facility will be demonstrated through implementation of an O&M Plan.

Typically Achievable Control Technology (TACT)

15. LRAPA 32-008(2) requires new units installed or existing emission units modified on or after January 1, 1994, meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR in LRAPA title 38, Type A State NSR in LRAPA title 38, an applicable Standard of Performance for New Stationary Sources in LRAPA title 46, or any other standard applicable only to new or modified sources in LRAPA title 32, title 33, or title 39 for the regulated pollutant emitted; 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.

    15.a. Only the VOC emission for EU-3 Welding has the potential to exceed one (1) ton per year. While LRAPA has not performed a formal TACT determination for particulate matter from this emission unit, LRAPA believes that current operating practices will likely meet the TACT requirements because add-on control devices would likely to be economically infeasible.

New Source Performance Standards (NSPS)

16. 40 CFR part 60, subpart EE – Standards of Performance for Surface Coating of Metal Furniture is not applicable to this facility because the facility does not use more than 3,842 liters of coating (as applied) per year and keeps purchase or inventory records or other data necessary to substantiate annual coating usage shall be exempt from all other provisions of this subpart. These records shall be maintained at the source for a period of at least 2 years.

17. 40 CFR part 60, subpart SS – Standards of Performance for Industrial Surface Coating: Large Appliances is not applicable to this facility because the facility is not primarily engaged in the operations listed in 40 CFR 60.450.

18. 40 CFR part 60, subpart TT – Standards of Performance for Metal Coil Surface Coating is not applicable to this facility because the facility is not primarily engaged in the operations listed in 40 CFR 60.460.

Hazardous Air Pollutants (HAPs) and National Emission Standards for Hazardous Air Pollutants (NESHAPs)

19. 40 CFR part 63, subpart SSSS – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil is not applicable to this facility because the facility is not primarily engaged in the operations listed in 40 CFR 63.5090 and this facility is not a major source of federal HAPs.

20. 40 CFR part 63, subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products is not applicable to this facility because the facility is not primarily engaged in the operations listed in 40 CFR 63.4481 and this facility is not a major source of federal HAPs.

21. 40 CFR part 63, subpart NNNN – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances is not applicable to this facility because the facility is not primarily engaged in the operations listed in 40 CFR 63.4081(d) and this facility is not a major source of federal HAPs.

22. 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 this facility because the facility is not a major source of federal HAPs.

23. 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 sprayed at the facility do not contain the target HAPs listed under the regulation of chromium, lead, manganese, nickel or cadmium.

24. 40 CFR Part 63, Subpart XXXXXX - National Emission Standards for Hazardous Air Pollutants: Nine Metal Fabrication and Finishing Source Categories is not applicable to the source because the facility is not primarily engaged in the operations listed in 40 CFR 63.11514(a).

Plant Site Emission Limits (PSELs)

25. Provided below is a summary of the baseline emission 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	24	De Minimis	2.1	25
PM_{10}	NA	0	0	14	De Minimis	2.1	15
$PM_{2.5}$	NA	0	0	9	De Minimis	2.1	10
CO	NA	0	0	NA	De Minimis	De Minimis	100
NO_X	NA	0	0	NA	De Minimis	De Minimis	40
SO_2	NA	0	0	NA	De Minimis	De Minimis	40
VOC	NA	0	0	39	1.4	1.4	40
GHG (CO_2e)	NA	0	0	74,000	De Minimis	De Minimis	75,000

25.a. The facility does not have a baseline emission rate (BER) because the facility was not in operation during the 1977-1978 baseline years.

25.b. Because the BERs are zero (0), the netting basis for all pollutants is zero (0) in accordance with LRAPA 42-0046(2)(a)&(c).

25.c. In accordance with LRAPA 42-0041(2), the PSELs are set equal to the sources potential-to-emit (PTE) for a given regulated pollutant. The previous PSELs for this facility were set at the Generic PSEL as allowed under previous regulations that have been revised. No PSELs are set for CO, NO_X, 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.

Unassigned Emissions and Emission Reduction Credits

26. The facility has zero (0) unassigned emissions. Unassigned emissions are equal to the netting basis minus the source's current PTE, minus any banked emission reduction credits. The facility has zero (0) tons of emission reduction credits.

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

27. This source is located in an area that is designated attainment or unclassified for all regulated pollutants other than CO and PM_{10}. For pollutants other than CO and PM_{10}, 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.

Federal Hazardous Air Pollutants (FHAP)/Toxic Air Contaminants (TAC)

28. Potential annual federal hazardous air pollutant emissions (FHAP) are based on the potential to emit of the facility operating under permit limitations. Formaldehyde has the highest single FHAP emissions at approximately 0.07 tons per year. The potential total FHAP emissions are 0.16 tons per year. A major source of FHAPs is defined as having potential FHAP emissions of at least 10 tons per year of any single HAP and 25 tons per year of the aggregate of all FHAPs. This facility does not have potential FHAP emissions exceeding these thresholds and is considered a minor or area source of FHAPs.

29. Under the Cleaner Air Oregon (CAO) program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and, therefore, is 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 (TAC) that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 TACs. The FHAPs and TACs listed below are based upon safety data sheets and standard emission factors for the types of emission units at this facility. 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 TACs. Until then, this source will be required to report TAC emissions triennially.

30. The table below represents the potential emissions of federal HAPs/TACs from this facility assuming operation at the permit allowable limitations:

CAS/DEQ Number	Pollutant	PTE (TPY)	FHAP	CAO TAC
18540-29-9	Chromium VI	4.64E-02	Yes	Yes
7439-96-5	Manganese	5.72E-01	Yes	Yes
7440-02-0	Nickel	4.22E-02	Yes	Yes
7439-92-1	Lead	4.00E-03	Yes	Yes
1330-20-7	Xylene	2.96E-02	Yes	Yes
100-41-4	Ethyle Benzene	8.89E-03	Yes	Yes
1314-13-2	Zinc Oxide	8.89E-03	No	No
Total HAPs and TACs (TPY) = 0.7				

Toxic Release Inventory (TRI)

31. 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. 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.

32. To report emissions to the TRI program, a facility must operate under a reportable North American Industry Classification System (NAICS) code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. The facility's NAICS code 332812 is not a reportable NAICS code; therefore, the facility does not have to report to the TRI program.

Compliance History

33. The facility has had no documented compliance issues since the issuance of the initial Simple ACDP. The facility was last inspected on May 9, 2019 and no compliance issues were discovered.

Source Testing

34. 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.

Recordkeeping Requirements

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

Activity	Parameter	Units	Minimum Recording Frequency
PSEL Recordkeeping			
PSEL pollutant emissions as calculated according to Condition 5 of the permit, including the supporting process information	Calculation	Tons	Monthly
Welding wire/rod	Usage	Pounds	Monthly
Powder coating	Usage	Pounds	Monthly
Abrasive blasting media	Usage	Pounds	Monthly
Paint booth coating	Usage	Gallons	Monthly
General Recordkeeping			
Spray booth filter particulate matter control efficiency	Control efficiency	%	Maintain documentation from each filter manufacturer
Log of each nuisance complaint and the resolution	NA	NA	Upon receipt of complaint
Visual emission survey logs according to Condition 11.d. of the permit	NA	NA	Quarterly
Operation and Maintenance Plan	NA	NA	Maintain the current version on-site
Upset log of all planned and unplanned excess emissions, as required by Condition G16	NA	NA	Per occurrence

Reporting Requirements

36. 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 Condition 5 of the permit, including supporting calculations	Annual	February 15
Welding wire/rod usage	Annual	February 15
Powder coating usage	Annual	February 15
Abrasive blasting media usage	Annual	February 15
Paint booth coating usage	Annual	February 15
A summary of maintenance and repairs performed on any pollution control devices at the facility	Annual	February 15
A summary of nuisance complaints from the public and the resolution, as applicable	Annual	February 15

Report	Reporting Period	Due Date
The upset log required by Condition 14 of the permit, if any planned or unplanned excess emissions have occurred during the reporting period.	Annual	February 15

37. 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

38. Pursuant to paragraph 37-0064(5)(a), issuance of a renewed Simple Air Contaminant Discharge Permit requires a Category III public notice according to title 31. In accordance with paragraph 31-0030(3)(c), LRAPA provided public notice of the proposed permit action and a minimum of 35 days for interested persons to submit written comments.

    The proposed permit was on public notice from January 29, 2025 to March 6, 2025. No written comments were submitted during the public comment period. No public hearing was requested during the public comment period.

MH/aa
3/11/2025

Gheen Irrigation Emission Details:

Criteria Pollutant Emissions				
Emission Unit	**PM (TPY)**	**PM_{10} (TPY)**	**$PM_{2.5}$ (TPY)**	**VOC (TPY)**
#1 Sandblasting	0.07	0.07	0.07	--
#2 Powder Coating	0.0023	0.0023	0.0023	0.30
#3 Welding	0.19	0.19	0.19	--
#4 Paint Booth	0.00	0.00	0.00	1.13
PTE	0.26	0.26	0.26	1.43
PSEL	**0.3**	**0.3**	**0.3**	**1.4**

HAPs/TACs:

Chemical Name	CAS/DEQ #	Sandblasting (lbs/yr)	Powder Coating (lbs/yr)	Welding (lb/yr)	Paint Booth (lbs/yr)	Total (TPY)	FHAP	TAC
Chromium (Total)	7440-47-3	--	--	0.00000	--	0.0000	N	Y
Aluminum	7429-90-5			7.47949	--	0.0037	N	Y
Manganese	7439-96-5	--	--	6.54455	--	0.0033	Y	Y
Nickel	7440-02-0	--	--	0.03740	--	0.00002	Y	Y
Zinc	7440-66-6	--	--	0.00000	5.90E+01	0.0295	N	Y
Copper	7440-50-8			0.41137	--	--	N	Y
Acetone	67-64-1	--	--	--	3.04E+01	0.02	N	Y
Total HAPs/TACs		0.00E+00	0.00E+00	14.47	8.94E+01	0.05	--	--

Sandblasting

Emission Unit	2015 Actual Usage (lbs/yr)	Maximum Projected Usage (lbs/yr)	PM Emission Factor (lbs/1000 lb abrasive)	$PM/PM_{10}/PM_{2.5}$ (TPY)
#1 Sandblasting	105,670	200,000	0.69	0.07

Chemical Name	CAS/DEQ #	Weight Fraction	Total Emission (lbs/yr)
Garnet	1302-62-1	92	184000
Ilmenite	103170-28-1	1	2000
Quartz	14808-60-7	0.1	200
Pyroxene	12174-37-3	4	8000
Hornblende	1178-42-6	2	4000

Actual Usage is listed as the highest annual actual usage between 2014-2023, which is the year of 2015.
The Maximum Projected Usage (200,000 lbs/yr) is an estimate based on the maximum annual usage of the abrasive material at the facility, as provided by the facility.
Particulate Matter Emission Factors were obtained from AP-42 table 13.2.6-1 'Abrasive blasting of unspecified metal parts, controlled with a fabric filter'
The facility operates a baghouse for sandblasting activities. The emission factor obtained is considered an index with baghouse.
Annual Emissions = Maximum Projected Usage x Emission Factor.

Powder Coating

Emission Unit	2023 Actual Usage (lbs/yr)	Maximum Projected Usage (lbs/yr)	PM Emission Factor (lb/lb coating)	$PM/PM_{10}/PM_{2.5}$ (TPY)	VOC Wt Fraction	VOC (TPY)
#2 Powder Coating	3937	6000	0.75	0.002	0.1	0.3

Chemical Name	CAS/DEQ #	Weight Fraction	Total Emission (lbs/yr)
Epoxy Resin	NA	10	600
Rutile (TiO2)	1317-80-2	3	180
Boron zinc hydroxide oxide	138265-88-0	3	180
Quartz	14808-60-7	0.3	18

Actual Usage is listed as the highest annual actual usage between 2014-2023, which is the year of 2023.
The Maximum Projected Usage (=6000lbs) is based on the maximum annual usage of the powder coating material at the facility, provided by the facility.
Powder Coating Emission Factor was obtained from AP-42 Ch. 4.2.2.12-1 Air atomized spray = 0.25. Emission Factor = 1-0.25 = 0.75 lb/lb used
VOC emissions are from the Epoxy Resin(10%)
The facility operates a baghouse for Powder Coating and its control efficiency is considered to be 99.9%.
Projected Annual Emissions = Projected Maximum Usage x Emission Factor.

Welding

2,080	= Facility actual hours
8,760	= Facility potential hours
16	= Max usage at 2,080 hours (1000 lb wire/yr)

Criteria Pollutants

Pollutant	Cas No.	Capacity Emissions (TPY)	Potential Emissions (TPY)
PM/PM10/PM2.5	--	0.19	0.19

HAP/TAC Emissions

Pollutant	Cas No.	Capacity Emissions (TPY)	Potential Emissions (TPY)	Actual 2023 (TPY)
Chromium (Total)	7440-47-3	0.0E+00	0.0E+00	
Aluminum	7429-90-5	3.7E-03	3.7E-03	
Copper	7440-50-8	2.1E-04	2.1E-04	
Manganese	7439-96-5	3.3E-03	3.3E-03	6.03E-04
Nickel	7440-02-0	1.9E-05	1.9E-05	3.45E-06
Zinc	7440-66-6	0.0E+00	0.0E+00	
				6.07E-04

Welding Wire/Rod Emission Factors

Process	Type	Emission Factors (lb/10^3 lb) Fume	Chromium	Aluminum	Copper	Manganese	Nickel	Zinc
GMAW	E308l	5.4	ND	0.108	0.00594	0.0945	0.00054	ND
GMAW	E70S	5.2	ND	ND	ND	ND	ND	ND

Wire Usage	1000 lb wire/yr
2023	13
2022	14
2021	16
2020	12
2019	12
2018	10

Notes:

Emission factors derived from US EPA, AP-42, Table 12.19-1.
Assumes highest emitting welding wire/rod for fume and SDS for individual pollutants.
ND (No Detect) is represented as zero.
<' than the detection limit values represented as the detection limit.
The NOx and CO emissions from welding are assumed to be negligible.
Maximum usage based on highest usage for calendar years 2018 through 2023.
Facility uses two welding wire types: Fabcor Ultimet 716 and ESAB Spoolarc 86

Paint Booth

2,080	= Facility actual hours
8,760	= Facility potential hours
14	= Zinc Rich Paint 2023 usage at 2,080 hours (gal/yr)
112	= Acrylic Paint 2023 usage at 2,080 hours (gal/yr)
90%	= Minimum Coating Transfer Efficiency
99.84%	= Minimum Filter PM Removal Efficiency

Criteria Pollutants

Manufacturer	Product Name	Projected Maximum Usage (gal/yr)	Density (lbs/gal)	VOC (lbs/gal)	Volatile (% wt.)	Solids (% wt)	Solids Usage (lbs/yr)	PM Capacity Emissions (TPY)	PM Potential Emissions (TPY)	VOC Capacity Emissions (TPY)	VOC Potential Emissions (TPY)
Aervoe	Crown Cold Galvanizing Coating 93% Zinc Rich (Bulk)	59	23	--	80.00%	20.00%	271	1.4E-02	2.2E-05	0.54	0.54
Summit Racing	Acrylic Urethane Topcoat Paint - Ultra Blue Pearl	472	7.96	2.50	100.00%	0.00%	0	0.0E+00	0.0E+00	0.59	0.59
							Total Emissions (TPY) =	**1.4E-02**	**2.2E-05**	**1.13**	**1.13**

Chemical Name	CAS/DEQ #	Weight Percent (Highest in Range if Given)	Total Emission (lbs/yr)
Crown Cold Galvanizing Coating 93% Zinc Rich			
Aliphatic Petroleum Distillates	64742 88 7	30	17.7
Zinc Powder	7440-66-6	100	59.0
n-Butyl Acetate	123 86 4	5	2.9
Acrylic Urethane Topcoat Paint - Ultra Blue Pearl			
Polyol	NA	59.55	280.9
Aromatic Hydrocarbon	64742-94-5	1	4.7
Acetone	67-64-1	6.45	30.4
Diacetone Alchohol	123-42-2	8.35	39.4
n-Amyl Methyl Ketone	110-43-0	17.75	83.7
Aromatic Naphta Type 1	64742-95-6	6.65	31.4

PM/PM10/PM2.5 EF=	**0.05**	**lb PM/gal**
VOC EF =	**4.3**	**lb VOC/gal**

The Maximum Projected Usage is based on the 2023 ATEI usage and scaled up from 2,080 hours/year to 8,760 hours/year
PM control device filter wall control efficiency is 99.84% according to the facility.
Uncontrolled VOC emissions from solvents and surface coatings considered 100% emitted from AP-42 Ch. 4.2.2.1-2
Projected Annual Emissions = Projected Maximum Usage x Emission Factor.