Lane Regional Air Protection Agency
Standard Air Contaminant Discharge Permit

Review Report

Bulk Handling Systems **Permit No. 200575**
460 North Danebo Avenue
Eugene, Oregon 97402
Website: https://bulkhandlingsystems.com/

Source Information:

Primary SIC	3559 – Special Industrial Machinery, NEC
Secondary SIC	--
Primary NAICS	333249 – Other Industrial 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
Public Notice Category	III

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)	N
Quarterly Report (due date)	N		

Air Programs

NSPS (list subparts)	N	TACT	N
NESHAP (list subparts)	N	>20 Megawatts	N
CAM	N		
Regional Haze (RH)	N		
Synthetic Minor (SM)	N		
SM-80	Y		
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		
Prevention of Significant Deterioration (PSD)	N		
Acid Rain	N		
Clean Air Mercury Rule (CAMR)	N		

Permittee Identification

1. Bulk Handling Systems ('the facility' or 'BHS') operates a facility that manufactures specialty machinery for the recycling and separating industry at 460 North Danebo Avenue in Eugene, Oregon.

General Background

2. The facility began operations at the current location in 2008. The significant emission units at the facility include welding operations and two (2) spray paint booths. One of the spray booths existed on-site prior to the facility beginning operations at this location. The facility typically operates 2,000 hours per year (one shift).

Reasons for Permit Action and Fee Basis

3. This permit action is a renewal for an existing Standard Air Contaminant Discharge Permit (Standard ACDP) which was issued on November 2, 2018 and is scheduled to expire on November 2, 2023. As the facility submitted a timely renewal application on March 9, 2023, the current permit will remain in effect until final action has been taken on the renewal application. The facility is on a Standard ACDP due to the compliance history of the source as allowed under LRAPA 37-0025(5)(a)(E).

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 inside the Eugene-Springfield UGB as defined in LRAPA 29-0010 which designates the Eugene-Springfield carbon monoxide (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.

Permitting History

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

Date(s) Approved/Valid	Permit Action Type	Description
10/08/2008 – 10/07/2013	Minimal ACDP	Initial permit – Included Danebo location
05/08/2009	Addendum 1	Administrative amendment – modify the permit type and fee basis
07/1/2010	Addendum 2	Administrative amendment – change of address
07/12/2010	Addendum 3	Administrative amendment – change the LUCS information for new location
11/02/2018 – 11/02/2023	Standard ACDP	Renewal
Upon Issuance	Standard ACDP	Renewal

Compliance History

6. This facility is regularly inspected by LRAPA. The following table indicates the inspection history of this facility.

Agency	Type of Inspection	Date	Results
LRAPA	Full Compliance Evaluation	12/19/2013	Not in compliance
LRAPA	Full Compliance Evaluation	11/18/2022	No areas of non-compliance discovered

7. LRAPA has issued the following violation notices and/or taken the following enforcement actions against this facility:

7a. The facility was issued Notice of Non-Compliance (NON No. 3042) on July 31, 2008, for operating an air contaminant source without first having obtained an Air Contaminant Discharge Permit (ACDP). On November 27, 2007, the facility submitted an application to LRAPA for an ACDP, but LRAPA subsequently determined that an ACDP should have been obtained by the facility as early as January 2003. The facility was issued a Minimal ACDP (No. 200575) by LRAPA on October 8, 2008. As resolution to NON 3042, LRAPA proposed to assess permit fees in the amount of $2,255 for the period of January 2003 through December 31, 2007. The facility paid the past due permit fees in the amount of $2,255 on December 22, 2008, and the enforcement file was closed.

7b. The facility was issued a Notice of Non-Compliance (NON No. 3598) on January 20, 2016, and a Notice of Civil Penalty (NCP No. 16-3598) on January 26, 2016, for failing to submit the semi-annual reports for the 2014 reporting year and the semi-annual report for July 15, 2015. The requirement to submit semi-annual reports came into effect on October 26, 2012, with the issuance of the facility's Standard ACDP, which was a reevaluation of the permit type required for the facility determined from review of the Eugene Toxics Right to Know reporting indicating the facility's potential to emit exceeded the major source threshold for an individual HAP. LRAPA assessed a civil penalty of $2,100, with a final order issued on March 28, 2016, for the full amount of the assessed civil penalty. The facility paid $2,100 on March 30, 2016, and the case was closed.

Emission Unit Description

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

Emission Unit ID	Description	Pollution Control Device (PCD ID)	Installed / Last Modified
WO	Welding Operations	None	2008
PB-1	Paint Booth #1	Dry filters	<2008
PB-2	Paint Booth #2	Dry filters	2010

Emission Limitations

9. 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. Compliance will be demonstrated through implementation of an Operation & Maintenance Plan for the dry filters.

10. 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):

10a. 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

10b. For sources installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot.

Compliance will be demonstrated through implementation of an Operation & Maintenance Plan for the dry filters.

11. 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. Compliance will be demonstrated through implementation of an Operation & Maintenance Plan for the dry filters.

12. The control equipment and spray booth operations 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 Operation & Maintenance Plan. For the spray booth operations at the facility, the permittee will be required to (a) use dry filters achieving at least 98% captures of overspray particulate matter emissions, (b) use high transfer efficiency spray guns, (c) clean spray guns in an approved manner, (d) only allow trained personnel to spray apply coatings, and (e) keep VOC-containing materials closed when not in use.

13. Under LRAPA 49-020, the permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel. Compliance will be demonstrated by the permittee maintaining a log of each nuisance complaint received during the operation of the facility. A plant representative must immediately investigate the condition following the receipt of the nuisance complaint and provide a response to the complainant within 24 hours, if practicable

Typically Achievable Control Technology (TACT)

14. 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,

    14a. For welding operations (EU: WO) the facility does not have potential particulate matter emissions that exceed five (5) tons per year. TACT is not applicable to this emission unit.
    14b. For the paint booths (EU: PB-1 and PB-2) the facility uses dry filters to control particulate matter emissions such that potential particulate matter emissions do not exceed five (5) tons per year from each individual spray booth. TACT is not applicable to particulate matter from any individual spray booth.
    14c. For the paint booths (EU: PB-1 and PB-2) the VOC emissions may exceed ten (10) tons per year from each individual spray booth. While LRAPA has not performed a formal TACT determination for VOCs, LRAPA has determined that the following requirements likely meet TACT: (1) the use of high volume, low pressure (HVLP), airless, air-assisted airless (AAA) and/or electrostatic spray gun technology (or equivalent), (2) prohibiting manual spray gun system cleaning from being performed outside a container that collects the gun cleaning solvent, and (3) requiring personnel who apply surface coatings to be trained in proper spray application of surface coatings. The facility's current use of airless spray guns results in the application of the least amount of VOC per square foot of product produced for their process. In addition, spray booths do not typically have add-on control technology due to the low concentration of VOCs and the high air flow rates resulting from 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	NA	NA	25
PM_{10}	NA	0	0	NA	NA	NA	15
$PM_{2.5}$	NA	0	0	NA	NA	NA	10
CO	NA	0	0	NA	NA	NA	100
NO_X	NA	0	0	NA	NA	NA	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. In accordance with OAR 340-222-0041(3), the PSEL for VOC is set equal to a level requested by the applicant. No PSELs are set for PM, PM_{10}, $PM_{2.5}$, NO_X, 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. The baseline year, netting basis, and SER are not applicable for limiting federal HAPs. The PSELs for individual federal HAPs and aggregate federal HAPs of nine (9) TPY and 24 TPY, respectively, were established under previous ACDPs and have not been revised under this renewal. The facility does have a capacity for federal HAPs that exceeds the major source thresholds for individual federal HAPs and aggregate federal HAPs of 10 TPY and 25 TPY, respectively. The HAP PSEL restricts the facility to less than major source thresholds.

Federal Hazardous Air Pollutants/Toxic Air Contaminants

16. The major source threshold for federal HAPs is 10 tons per year for an individual federal HAP and 25 tons per year from the aggregate of all federal HAPs. 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 to avoid being considered a major source of federal HAPs. Based upon the facility's current coating usage, the facility does have the capacity to exceed the major source threshold for an individual federal HAP. Therefore, the facility is considered a synthetic 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. These estimates are based on the highest VOC emitting calendar year of 2018 adjusted by the production factor of 4.2 shown and ratioed by the VOC PSEL requested by the facility of 39 TPY. As the facility has requested a limit on individual federal HAPs to remain a synthetic minor source, the highest potential emission for an individual HAP is xylenes at 9 TPY. The potential emissions in aggregate of all federal HAPs is 11.7 TPY.

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Organics				
Acetone	67-64-1	53.2	N	Y
Aliphatic Petroleum Distillates	64742-89-8	4.29	N	N
Ethyl Benzene	100-41-4	1.86	Y	Y
Glycol Ether Monobutyl Ether	111-76-2	0.13	N	Y
Isobutyl Alcohol	78-83-1	2.01	N	N
Methyl Ethyl Ketoxime	962-29-7	0.23	N	N
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.13	Y	Y
Methyl n-Propyl Ketone	107-87-9	2.14	N	N
Mineral Spirits	64741-65-7	2.11	N	N
Naptha, Hydrotreated Heavy	64742-48-9	0.34	N	N
Toluene	108-88-3	0.62	Y	Y
Triethylamine	121-44-8	0.01	Y	Y
VM&P Naphtha	8032-32-4	15.0	N	N
Xylene	1330-20-7	9*	Y	Y
Metals				
Chromium (Total)	7440-47-3	3.4E-04	Y	N
Chromium (VI)	18540-29-9	3.4E-04	Y	Y
Cobalt	7440-48-4	3.4E-04	Y	Y
Manganese	7439-96-5	1.1E-01	Y	Y
Nickel	7440-02-0	3.4E-04	Y	Y

*Note: The potential emissions of this pollutant are set at the maximum allowable under the applicable HAP PSEL.

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 order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. For calendar year 2021, this facility reported the emissions of the following chemicals:

Chemical Name	CAS Number	Fugitive Release (pounds)	Stack Release (pounds)	Total Releases / Transfers (pounds)
Copper Compounds	7440-50-8	--	--	2,436
Manganese Compounds	7439-96-5	--	--	6,090
Chromium Compounds	7440-47-3	--	--	2,436
Nickel Compounds	7440-02-0	--	--	2,436

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. There are no emission units or activities at this facility for which NESHAPs have been promulgated or are applicable. 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 because the facility is not a major source of federal 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 because the facility does not use methylene chloride for paint stripping, it is not an autobody refinishing operation, and has certified that the sprayed surface coatings used at the facility do not contain the following target federal HAPs: cadmium, chromium, manganese, nickel, or lead.

    21c. 40 CFR Part 63 subpart XXXXXX – National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories is not applicable because the facility is not classified in one of the nine major industrial groups subject to this rule. The facility manufactures recycling and material sorting equipment and is classified under SIC code 3559 – Special Industrial Machinery, NEC, or, alternately, SIC 3569 – General Industrial Machinery and Equipment, NEC.

Source Testing

22. 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

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

23a. VOC/HAP-containing materials include, but are not limited to, coatings, lacquers, thinners, stains, topcoats, solvents, adhesives, cleaning, and wash-off materials.

23b. The density and VOC and 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
Emission Unit Recordkeeping			
VOC/HAP-containing material CPDS or 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
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
Spray coating application technology	Documentation	NA	Maintain documentation for each spray gun
Operation and Maintenance Plan	Document	NA	Maintain the current version on-site
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 of the permit	NA	Per occurrence

Reporting Requirements

24. 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 Condition 5 of the permit, including supporting calculations.	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

25. 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

26. Pursuant to LRAPA 37-0066(4)(a)(A), issuance of renewed Standard Air Contaminant Discharge Permit requires public notice in accordance with LRAPA 31-0030(3)(c), which requires LRAPA to provide notice of the proposed permit action and a minimum of 35 days for interested persons to submit written comments.

    The draft permit was on public notice June 21, 2023 to July 25, 2023. No written comments were submitted during the 35-day comment period.

JJW/cmw
08/09/2023

Emission Details

Bulk Handling Systems - 200575
Emission Detail Sheets
Facility Potential Emissions Summary

Criteria Pollutant Emissions

Emission Unit	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO_2 (TPY)	NO_x (TPY)	CO (TPY)	VOC (TPY)	GHGs (TPY)
Spray Booths (2)	0.46	0.46	0.46	0	0	0	39	0
Welding Operations	0.18	0.18	0.18	0	0	0	0	0
	de minimis	de minimis	de minimis	de minimis	de minimis	de minimis	39	de minimis

Compound	CAS Number	Adjusted PTE (TPY)	HAP	CAO
Organics				
Acetone	67-64-1	53.2	N	Y
Aliphatic Petroleum Distillates	64742-89-8	4.29	N	N
Benzene	71-43-2	0.00	Y	Y
Ethyl Benzene	100-41-4	1.86	Y	Y
Glycol Ether Monobutyl Ether	111-76-2	0.13	N	Y
Isobutyl Alcohol	78-83-1	2.01	N	N
Methyl Ethyl Ketoxime	962-29-7	0.23	N	N
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.13	Y	Y
Methyl n-Propyl Ketone	107-87-9	2.14	N	N
Mineral Spirits	64741-65-7	2.11	N	N
Naptha, Hydrotreated Heavy	64742-48-9	0.34	N	N
Toluene	108-88-3	0.62	Y	Y
Triethylamine	121-44-8	0.01	Y	Y
VM&P Naphtha	8032-32-4	15.0	N	N
Xylene	1330-20-7	9	Y	Y
Metals				
Chromium (Total)	7440-47-3	3.4E-04	Y	N
Chromium (VI)	18540-29-9	3.4E-04	Y	Y
Cobalt	7440-48-4	3.4E-04	Y	Y
Manganese	7439-96-5	1.1E-01	Y	Y
Nickel	7440-02-0	3.4E-04	Y	Y
Lead	7439-92-1	0.0E+00	Y	Y
Aggregate Adjusted PTE (TPY) =			11.7	65
Max Individual Adjusted PTE (TPY) =			9	

Note:
PSEL analysis only for units that are not categorically insignificant activities.
Facility PTE is greater than their original Generic PSEL of 39 TPY for VOC. Facility requests to remain at an elected PSEL of 39 TPY of VOC.
Spray booth PM/PM_{10}/$PM_{2.5}$ has been adjusted by the ratio of the 39 TPY VOC PSEL to the 71.3 TPY VOC PTE.
HAP/CAO organic emission totals have been adjusted by the ratio of the 39 TPY VOC PSEL to the 71.3 TPY VOC PTE.
Facility has requested to retain the limit on federal HAPs of 9.0 TPY for each individual HAP and 24 TPY for the aggretate of the HAPs.
Xylene emissions are set at the requested limit for an individual federal HAP of 9 TPY.

Bulk Handling Systems - 200575
Emission Detail Sheets
Spray Booth Emissions

65%	**= Minimum Coating Transfer Efficiency**
98.0%	**= Minimum Filter PM Removal Efficiency**
4.2	**= Scale Up Factor**

Product Name	2018 Gallons Used	Coating (lb/gal)	2018 Pounds Used	VOC (% wt.)	Solids (% wt)	VOC Emissions (lbs/yr)	PM Emissions (lbs/yr)
708098 Barrier III Metal Primer Gray	0	10.20	0	44.0%	56.0%	0	0
708001 Barrier III Metal Primer White	0	10.50	0	42.5%	57.5%	0	0
708099 Barrier III Metal Primer Black	310	10.90	3,379	45.1%	54.9%	1,524	13
733823 Low HAP Metal Primer II	4,715	10.80	50,922	26.0%	74.0%	13,237	264
758001 AAQD White Base	805	8.50	6,843	35.9%	64.1%	2,456	31
758002 AAQD Midtone	10	8.40	84	47.1%	52.9%	40	0
758003 AAQD Deeptone Base 3	1,245	7.60	9,462	53.4%	46.6%	5,053	31
758004 AAQD Clear	2,395	8.20	19,639	57.7%	42.3%	11,332	58
758082 AAQD Safety Red	5	7.90	40	54.2%	45.8%	21	0
758083 AAQD Safety Blue	0	7.80	0	58.4%	41.6%	0	0
758084 AAQD Safety Yellow	65	8.00	520	55.7%	44.3%	290	2
799273 Acetone	6,390	7.25	46,328	0.0%	0.0%	0	0
799267 Xylol	0	7.2	0	100.0%	0.0%	0	0
Total Usage (gal) =	15,940		**2018 Total Emissions (TPY) =**			17.0	0.20
			Max PTE (TPY) =			71.3	0.84

	XYLENE		VM&P NAPHTHA		TRIETHYLAMINE		TOLUENE		MINERAL SPIRITS		ISOBUTYL ALCOHOL		GLYCOL ETHER MONOBUTYL ETHER		ETHYL BENZENE		ALIPHATIC PETROLEUM DISTILLATES		NAPTHA, HYDROTREATED HEAVY		METHYL ETHYL KETOXIME		BENZENE		METHYL N-PROPL KETONE		METHYL ISOBUTYL KETONE (MIBK)		ACETONE	
	1330-20-7		8032-32-4		121-44-8		108-88-3		64741-65-7		78-83-1		111-76-2		100-41-4		64742-89-8		64742-48-9		962-29-7		71-43-2		107-87-9		108-10-1		67-64-1	
Product Name	**%**	**Emissions**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**	**%**	**Used**
708098 Barrier III Metal Primer Gray	0.364	0.00							0.001	0.00					0.073	0.00					0.002	0.00								
708001 Barrier III Metal Primer White	0.350	0.00													0.073	0.00					0.0019	0.00								
708099 Barrier III Metal Primer Black	0.369	1246.85			0.003	10.14			0.001	3.38					0.076	256.80					0.002	6.76								
733823 Low HAP Metal Primer II			0.22	11080.63					0.0015	75.36											0.0021	106.94			0.037	1860.38	0.0022	113.91		
758001 AAQD White Base	0.202	1382.19	0.04	287.39			0.011	75.27	0.041	280.54			0.016	109.48	0.036	246.33			0.011	75.27										
758002 AAQD Midtone	0.182	15.29	0.05	4.20			0.013	1.09	0.055	4.62					0.059	4.96	0.112	9.41												
758003 AAQD Deeptone Base 3	0.199	1882.94	0.05	501.49			0.015	141.93	0.048	454.18	0.06	520.41			0.036	340.63	0.119	1125.98	0.006	56.77	0.003	28.39								
758004 AAQD Clear	0.211	4143.83	0.06	1099.78			0.016	314.22	0.052	1021.23	0.06	1197.98			0.038	746.28	0.132	2592.35	0.008	157.11	0.003	58.92								
758082 AAQD Safety Red	0.224	8.85	0.083	3.28			0.014	0.55			0.054	2.13			0.04	1.58	0.118	4.66	0.006		0.003	0.12								
758083 AAQD Safety Blue	0.228	0.00	0.12	0.00			0.012	0.00			0.05	0.00			0.040	0.00	0.117	0.00	0.006	0.00	0.004	0.00								
758084 AAQD Safety Yellow	0.231	120.12	0.102	53.04			0.012	6.24			0.05	27.04			0.041	21.32	0.111		0.006	3.12	0.002	1.04								
799273 Acetone																													1.00	46327.50
799267 Xylol	0.900	0.00					0.005	0.00							0.19	0.00							0.00	0.00						
2018 Total Emissions (lbs/yr) =		8,800		13,030		10		539		1,839		1,748		109		1,618		3,732		292		202		0		1,860		114		46,328
Max PTE (TPY) =		18.5		27.4		0.02		1.13		3.86		3.67		0.23		3.40		7.84		0.61		0.42		0.00		3.91		0.24		97.3
Adjusted PTE (TPY) =		10.1		15.0		0.01		0.62		2.11		2.01		0.13		1.86		4.29		0.34		0.23		0.00		2.14		0.13		53.2

Note:
2018 is the highest VOC emitting calendar year in the last 10 years of Annual Reports.
Solids content is assumed to be [1 - %VOC content].
Transfer efficiency based on use of high efficiency transfer spray guns.
Actual dry filter particulate removal efficiency is higher than 98.0%.
Scale up factor based on the facility production schedule of 1 shift/5 days a week adjusted to 3 shifts/7 days a week.
Acetone is not considered a VOC under the definition of VOC in Title 12.
Adjusted PTE represents the potential emissions assuming a VOC PSEL of 39 TPY.

Bulk Handling Systems - 200575
Emission Detail Sheets
Welding Operations

2022 Actual GMAW Welding Wire/Rod Usage = 16.326 **1000 lbs**
Scale Up Factor = 4.2

Criteria Pollutants

Pollutant	Cas No.	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Total Particulate	--	2.0E-05	1.8E-01
PM_{10}	--	2.0E-05	1.8E-01
$PM_{2.5}$	--	2.0E-05	1.8E-01

HAP/TAC Emissions

Pollutant	Cas No.	Potential Emissions (lb/hr)	Potential Emissions (TPY)
Chromium (Total)	7440-47-3	3.9E-08	3.4E-04
Chromium (VI)	18540-29-9	3.9E-08	3.4E-04
Cobalt	7440-48-4	3.9E-08	3.4E-04
Manganese	7439-96-5	1.2E-05	1.1E-01
Nickel	7440-02-0	3.9E-08	3.4E-04
Lead	7439-92-1	0.0E+00	0.0E+00

2022 Welding Wire/Rod Usage By Type

		Emission Factors ($lb/10^3$ lb)						
Process	Type	Fume	Chromium	Cromium (VI)	Cobalt	Manganese	Nickel	Lead
GMAW/MIG	E70S	5.2	0.01	ND	0.01	3.18	0.01	ND

Notes:
BHS purchased 18,140 pounds of welding wire in 2022, 90% of which is assumed to have been for the Danebo location.
Chromium (VI) is set equivalent to Total Chomium conservatively.
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.