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BY: .....

March 4, 2024

Arizona Department of Environmental Quality
Air Quality Division
1110 W Washington St.
Phoenix, AZ 85007

Re: Air Permit Reissuance Application, Superior Industries Southwest Division – Prescott Valley, AZ

To Whom It May Concern:

Superior Industries, Inc. (Superior) was issued Air Quality Control Permit No. 77409 on October 25, 2019. The permit expires October 24, 2024. As required under Section 1.B. of the General Provisions of the Permit, Superior is submitting the enclosed permit reissuance application no later than 6 months prior to permit expiration (April 24, 2024).

Electronic files of the permit application can be provided upon request.

If you have any questions, please contact me at (928) 759-8908 or lane.koehl@superior-ind.com.

Sincerely,

Lane Koehl
SW Production Manager
Superior Industries

c: Denise Kazmierczak, Stantec Consulting Services Inc. (denise.kazmierczak@stantec.com)

Stantec

# Class II Air Permit Reissuance Application

**Superior Industries**
**Southwest Division**
**Prescott Valley, AZ**

File No. 227706557

March 2024

RECEIVED
MAR 1 1 2024
BY:

Prepared for:

SUPERIOR

**Superior Industries**
9880 Superior Lane
Prescott Valley, AZ 86314

Prepared by:

**Stantec Consulting Services Inc.**
2080 Wooddale Drive
Suite 100
Woodbury MN 55125

# Table of Contents

# 1.0 FACILITY DESCRIPTION

This document summarizes the air permit reissuance application for Superior Industries (Superior), Southwest Division, operations for its facility in Prescott Valley, Arizona (referred to herein as "facility"). Superior Industries, Southwest Division, is a conveyor manufacturing facility. The facility operations include fabrication and assembly.

The original Class II air permit (Permit #60320) was issued on January 27, 2015 (with Revision #72556 on November 1, 2018). Superior currently operates under the reissued Class II permit 77409 issued on October 25, 2019, that expires on October 24, 2024. As required under Section I.B of the General Provisions (Attachment A) of the Permit, Superior is submitting this permit reissuance no later than 6 months prior to expiration of the permit, or April 24, 2024. The Class II Permit Application Forms are provided in Appendix A.

The Class II permit reflects the emission sources and activities at the facility. In August 2023, Superior submitted a 317 Notification for a new Paint Booth, which did not require a permit revision. AZDEQ issued Facility Change without a Permit Revision No. 100119 to Permit No. 77409 in a letter dated September 1, 2023, for the new Paint Booth. Note this booth was called "B-Line" in the notification.

Air dispersion modeling was addressed in the original permitting. Air Dispersion Modeling Protocol was submitted to Dr. Feng Mao of AZDEQ on May 19, 2014. On May 22, 2014 the protocol was deemed acceptable with two questions/comments about the protocol. These questions/comments were incorporated into the modeling report for the facility that was submitted in the original permit application submitted on July 14, 2014.

## 1.1 EMISSION SOURCES

Emission sources at the facility, as summarized in Section 3.5 Equipment List in Appendix A, include:

- A-Line Paint Booth (EP1)
- B-Line Paint Booth (EP2) (Note – this line was identified as the "C-Line" in the current permit; Superior wishes to rename this to "B-Line" in the reissued permit.)
- C-Line Paint Booth (EP7) (Note – this line was identified as the "B-Line" in the August 2023 notification; Superior wishes to rename this to "C-Line" in the reissued permit.)"
- Pulley Paint Touch-Up Booth (EP3 / EP4)
- Abrasive Blasting Booth (no EP, vents internally)
- Water Wash Booth Oven (EP5)
- Power Paint Cure Oven (EP6)

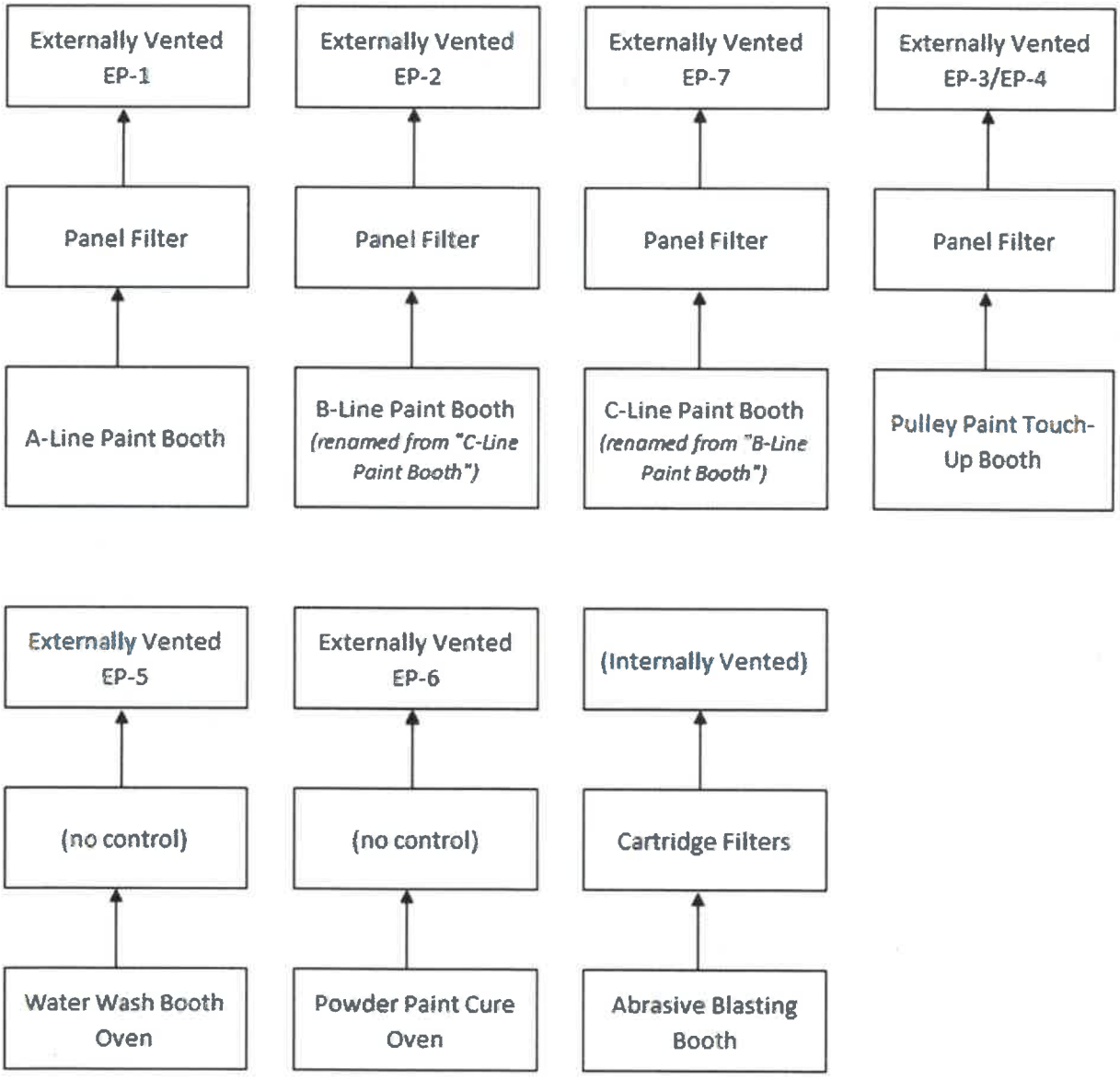
PTE from the equipment is summarized in Section 3.6 Emission Source Form in Appendix A. Potential to Emit (PTE) emission calculations are provided in Appendix B. Facility-wide emission limits established in the Class II Permit (Attachment B, Sections I.D and I.E) are:

- VOCs – 90 tons per year
- Total HAPs – 22.5 tpy
- Single HAP – 9.0 tpy

Assumptions for the potential emissions from painting have not changed from the original permitting. VOC emissions from the paint booths are a result of evaporated solvents (as VOCs) from drying of coating formulations, thinners and cleaners. HAP emissions are quantified based on their content in in the coating material. PM emissions are a result of coating overspray. Each paint booth has two paint guns, but only one paint gun is used at a time due to painting procedures. The guns are not interlocked. Actual paint booth use is about 25% of the time due to manual operation of the booth, down time, and time to move parts in an out of the booths. Emission calculations are based on 50% use as a conservative assumption for the calculations. If painting operations need to increase, Superior could add more people for preparations and moving parts; however, because the process is not automated 50% operation is the maximum operating time for the booths.

Combustion potential emissions are based on AP-42 emission factors. For the abrasive blasting booth, no potential emissions have been required to be calculated, since the unit is internally venting. The unit was listed as a trivial activity in the original permitting, but was changed to a listed unit by AZDEQ in the 2019 reissuance application.

## 1.2 PROCESS FLOW DIAGRAM




## 1.3 ALTERNATE OPERATING SCENARIO

There are no alternate operating scenarios applicable to this facility.

# 1.4 INSIGNIFICANT AND TRIVIAL ACTIVITIES

Insignificant and trivial activities at the facility have not changed since Permit 77409 issuance in October 2019.

Insignificant activities as defined in A.A.C R18-2-101(68) (revised June 20, 2022) that occur at the facility include:

1. **A.A.C. R18-2-101(68)(c)(iii)**: Powder coating operations.
2. **A.A.C. R18-2-101(68)(c)(iv)**: Water wash system.
3. **A.A.C. R18-2-101(68)(g)**: Site maintenance activities.

Trivial activities as defined in A.A.C R18-2-101(146)(b) (Low- Or Non-Emitting Industrial Activities) that occur at the facility include:

1. **A.A.C. R18-2-101(146)(b)** Low- Or Non-Emitting Industrial Activities

   - Listed item ii. Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, sawing, grinding, turning, routing or machining of ceramic art work, precision parts, leather, metals, plastics, fiberboard, masonry, carbon, glass, or wood.

   - Listed item iii. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are insignificant activities based on size or production level thresholds. Brazing, soldering, and welding equipment, and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this definition.

   - Listed item xii. Electric autoclaves, but not the emissions from the articles or substances being processed in the autoclaves.

There are various other activities at the facility that, based on their low PTE's, are considered insignificant/trivial at the facility. Emission calculations are provided for these units in Appendix B to document their PTE's. The emissions criteria used to qualify an activity as insignificant or trivial was CO and NOx emissions less than 2 tpy, and PM, PM10, PM2.5, SO2, VOC and total HAP emissions less than 1 tpy. Activities that continue to qualify under these criteria include:

- Miscellaneous Natural Gas and Propane Combustion Units for space heat
- Manual Cement application
- Manual Adhesive Roll-On

- Manual Assembly Vulcanizing Belt Cleaner application
- Maintenance Activities (crane chain cleaning)
- Plasma Cutting

# 2.0 APPLICABLE FEDERAL REQUIREMENTS

## 2.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

The facility is not a major source under 40 CFR Part 63 because the total facility HAP potential emissions are less than 25 tons per year and less than 10 tons per year of the greatest single HAP. Therefore, no major source NESHAPs apply to the facility including 40 CFR Part 63, Subpart MMMM, for Surface Coating of Miscellaneous Metal Parts and Products.

The facility evaluated area source NESHAPs for applicability in the original permitting. It was documented in the original air permit application that 40 CFR Part 63 Subpart HHHHHH, Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, was not applicable to the facility. In the original permitting, the facility had indicated that it is was subject to 40 CFR Part 63 Subpart XXXXXX, Nine Metal Fabrication and Finishing Source Categories at Area Sources, for welding activities. That designation was incorrect based on the facility SIC code, and those requirements were removed from the reissued Class II Permit 77409 issued in October 2019.

## 2.2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

As indicated in the original permitting, there are no NSPSs applicable to the operations at the facility.

# 3.0 APPLICABLE STATE REQUIREMENTS

The facility is subject to multiple State Existing Stationary Source Performance Standards, as identified in the original permitting.

Due to the cumulative capacity of natural gas fired units at the facility, A.A.C. R18-2-724, or Standards of Performance for Fossil Fuel fired Industrial Equipment and Commercial Equipment, is applicable for units less than 250 MMBtu/hr. All fossil fuel fired equipment at the facility uses either natural gas or propane. Due to the clean burning nature of these fuels, all equipment meets the PM limit defined in A.A.C. R18-2-724 (c). Additionally, these fuels generally do not produce any opacity or require performance testing during operations. The units are not controlled so monitoring systems for opacity from control devices are not applicable to the natural gas and propane fired equipment at the Superior facility.

A.A.C. R18-2-727, Standards of Performance for Spray Painting Operations, is applicable to the facility. As the facility does not perform architectural coating activities, the requirements for operations other than architectural coatings are pertinent to the facility. The rule requirement states that the facility must minimize organic solvent emissions by applying coatings in an enclosed area with control containing greater than or equal to 96% overspray. Superior paint booths are enclosed and currently control overspray with panel filters.

A.A.C 18-2-726, Standards of Performance for Sandblast Operations (including abrasive blasting) is applicable to the facility. The standard states "No person shall cause or permit sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Examples of good modern practices include wet blasting and the use of effective enclosures with necessary dust collecting equipment." The facility minimizes dust emissions to the atmosphere through the use of an enclosure with dust collection cartridge filters. The abrasive blasting machine exhausts internally in the building. These practices meet the rule requirements.

# APPENDIX A

## Application Packet Forms

**SECTION 3.1**

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

**Air Quality Division**

**1110 West Washington • Phoenix, AZ 85007 • Phone: (602) 771-2338**

## STANDARD CLASS II PERMIT APPLICATION FORM

(As required by A.R.S. § 49-426, and Chapter 2, Article 3, Arizona Administrative Code)

1. Permit to be issued to (Business license name of organization that is to receive permit):

   Superior Industries Southwest Division

2. Mailing Address: 9880 Superior Lane

   City: Prescott Valley State: AZ ZIP: 86314

3. Name (or names) of Responsible Official: Lane Koehl

   Phone: (928) 759-8908 Fax: (928) 759-8907 Email: lane.koehl@superior-ind.com

4. Facility Manager/Contact Person and Title: Lane Koehl, SW Production Manager

   Phone: (928) 759-8908 Fax: (928) 759-8907 Email: lane.koehl@superior-ind.com

5. Facility Name: Superior Industries Southwest Division

   Facility Location/Address (Current/Proposed): 9880 Superior Lane

   City: Prescott Valley County: Yavapai County ZIP: 86314

   Indian Reservation (if applicable, which one): Not applicable

   Latitude/Longitude, Elevation: 381423.181 Easting (m)/3827399.708 Northing (m), 1524.3 m Elevation

6. General Nature of Business: Conveyor manufacturing

7. Type of Organization:

   ☒Corporation ☐Individual Owner ☐Partnership ☐Government Entity ☐LLC ☐Other

8. Permit Application Basis: ☐New Source ☐Revision ☒Renewal of Existing Permit

   For renewal or modification, include existing permit number (and exp. date): 77409, 10/24/24

   Date of Commencement of Construction or Modification:

   Primary Standard Industrial Classification Code: 3535

9. I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by ADEQ as public record. I also attest that I am in compliance with the applicable requirements of the Permit and will continue to comply with such requirements and any future requirements that become effective during the life of the Permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that

I will assume responsibility for the construction, modification, or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.

Signature of Responsible Official: Lane Koehl

Printed Name of Signer/Official Title: Lane Koehl, SW Production Manager

Date: 5 March 2024 Telephone Number: (928) 759-8908

## Section 3.5 - Equipment List

| Type of Equipment | Maximum Rated Capacity [1] | Make | Model | Serial Number | Date of Manufacture | Equipment ID Number |
|---|---|---|---|---|---|---|
| A-Line Paint Booth | 3.98 gallon/hr | Graco | Pro XS4 | A23501/A23418 | 2008/2008 | EP1 |
| B-Line Paint Booth | 3.98 gallon/hr | Graco | Pro XS4 | 57156/A23400 | 2011/2008 | EP2 |
| Pulley Paint Touch-Up Booth | 4.22 gallon/hr | Devilbiss | Com-P5522G-14-00 | BH11 9LH | 2013 | EP3 and EP4 (2 stack vents) |
| Abrasive Blasting Booth | 13.1 ft/min metal throughput | Rosler | RRB 16/5 | 63022 | 2014 | No EP (internally venting) |
| Water Wash Booth Oven | 4 MMBtu/hr | Maxon | 6 TOT | 886351 | Not available | EP5 |
| Powder Paint Cure Oven | 4 MMBtu/hr | Eclipse Airheat | AH Burner Series | custom | Not available | EP6 |
| C-Line Paint Booth | 3.98 gallon/hr | RTT Engineered Solutions | XCD-18-16-75-N-DT | SO73125 | 2024 | EP7 |
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[1] For generator sets, enter the maximum rated capacity of the engine rather than the maximum rated capacity of the generator.

All relevant equipment utilized at the facility should be included in the equipment list. Please complete all fields.

**The date of manufacture must be included in order to determine applicability of regulations.**

Indicate the units (tons/hour, horsepower, etc.) when recording the maximum rated capacity.

Make additional copies of this form if necessary.

***Submit photographs of the faceplates for all engines listed above.**

***If an engine is certified, please also include a copy of the engine certification with the application.**

***For any newly added equipment, include a copy of the specification sheet.**

## SECTION 3.6 - EMISSION SOURCE FORM

| | | | | | USE THIS SECTION FOR MODIFICATIONS ONLY | | |
|---|---|---|---|---|---|---|---|
| Emission Point | | Regulated Air Pollutant Name | PTE | | PTE AFTER MODIFICATION | | CHANGE IN PTE |
| Number | Name | | lbs/hr | tons/yr | lbs/hr | tons/yr | tons/yr |
| EP1 | A-Line Paint Booth | PM | 0.21 | 0.90 | | | |
| EP1 | A-Line Paint Booth | PM10 | 0.22 | 0.98 | | | |
| EP1 | A-Line Paint Booth | PM2.5 | 0.17 | 0.76 | | | |
| EP1 | A-Line Paint Booth | VOC | 13.21 | 57.87 | | | |
| EP1 | A-Line Paint Booth | HAPS | 0.91 | 4.00 | | | |
| EP2 | B-Line Paint Booth | PM | 0.21 | 0.90 | | | |
| EP2 | B-Line Paint Booth | PM10 | 0.22 | 0.98 | | | |
| EP2 | B-Line Paint Booth | PM2.5 | 0.17 | 0.76 | | | |
| EP2 | B-Line Paint Booth | VOC | 13.21 | 57.87 | | | |
| EP2 | B-Line Paint Booth | HAPS | 0.91 | 4.00 | | | |
| EP3/EP4 | Pulley Paint Touch-Up Booth | PM | 0.21 | 0.90 | | | |
| EP3/EP4 | Pulley Paint Touch-Up Booth | PM10 | 0.22 | 0.98 | | | |
| EP3/EP4 | Pulley Paint Touch-Up Booth | PM2.5 | 0.17 | 0.76 | | | |
| EP3/EP4 | Pulley Paint Touch-Up Booth | VOC | 13.21 | 57.87 | | | |
| EP3/EP4 | Pulley Paint Touch-Up Booth | HAPS | 0.91 | 4.00 | | | |

****Submit emission calculations spreadsheet with your application****

## SECTION 3.6 - EMISSION SOURCE FORM

| | | | | | USE THIS SECTION FOR MODIFICATIONS ONLY | | |
|---|---|---|---|---|---|---|---|
| Emission Point | | Regulated Air Pollutant Name | PTE | | PTE AFTER MODIFICATION | | CHANGE IN PTE |
| Number | Name | | lbs/hr | tons/yr | lbs/hr | tons/yr | tons/yr |
| EP5 | Water Wash Booth Oven | PM | 0.030 | 0.13 | | | |
| EP5 | Water Wash Booth Oven | PM10 | 0.030 | 0.13 | | | |
| EP5 | Water Wash Booth Oven | PM2.5 | 0.030 | 0.13 | | | |
| EP5 | Water Wash Booth Oven | SO2 | 0.0024 | 0.010 | | | |
| EP5 | Water Wash Booth Oven | NOx | 0.39 | 1.72 | | | |
| EP5 | Water Wash Booth Oven | VOC | 0.022 | 0.094 | | | |
| EP5 | Water Wash Booth Oven | CO | 0.33 | 1.44 | | | |
| EP5 | Water Wash Booth Oven | Lead | 1.96E-06 | 8.59E-06 | | | |
| EP5 | Water Wash Booth Oven | HAPs | 7.40E-03 | 3.24E-02 | | | |
| EP5 | Water Wash Booth Oven | CO2e | 468 | 2050 | | | |
| EP6 | Powder Paint Cure Oven | PM | 0.030 | 0.13 | | | |
| EP6 | Powder Paint Cure Oven | PM10 | 0.030 | 0.13 | | | |
| EP6 | Powder Paint Cure Oven | PM2.5 | 0.030 | 0.13 | | | |
| EP6 | Powder Paint Cure Oven | SO2 | 0.0024 | 0.010 | | | |
| EP6 | Powder Paint Cure Oven | NOx | 0.39 | 1.72 | | | |

****Submit emission calculations spreadsheet with your application****

## SECTION 3.6 - EMISSION SOURCE FORM

| | | | | | USE THIS SECTION FOR MODIFICATIONS ONLY | | |
|---|---|---|---|---|---|---|---|
| Emission Point | | Regulated Air Pollutant Name | PTE | | PTE AFTER MODIFICATION | | CHANGE IN PTE |
| Number | Name | | lbs/hr | tons/yr | lbs/hr | tons/yr | tons/yr |
| EP6 | Powder Paint Cure Oven | VOC | 0.022 | 0.094 | | | |
| EP6 | Powder Paint Cure Oven | CO | 0.33 | 1.44 | | | |
| EP6 | Powder Paint Cure Oven | Lead | 1.96E-06 | 8.59E-06 | | | |
| EP6 | Powder Paint Cure Oven | HAPs | 7.40E-03 | 3.24E-02 | | | |
| EP6 | Powder Paint Cure Oven | CO2e | 468 | 2050 | | | |
| EP7 | C-Line Paint Booth | PM | 0.21 | 0.90 | | | |
| EP7 | C-Line Paint Booth | PM10 | 0.22 | 0.98 | | | |
| EP7 | C-Line Paint Booth | PM2.5 | 0.17 | 0.76 | | | |
| EP7 | C-Line Paint Booth | VOC | 13.21 | 57.87 | | | |
| EP7 | C-Line Paint Booth | HAPS | 0.91 | 4.00 | | | |
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| | | | | | | | |

****Submit emission calculations spreadsheet with your application****

## SECTION 5.0 -APPLICATION ADMINISTRATIVE COMPLETENESS CHECKLIST

| | REQUIREMENT | MEETS REQUIREMENTS | | | COMMENT |
|---|---|---|---|---|---|
| | | YES | NO | N/A | |
| 1 | Has the standard application form been completed? | | | | |
| 2 | Has the responsible official signed the standard application form? | | | | |
| 3 | Has a process description been provided? | | | | |
| 4 | Are the facility's emissions documented with all appropriate supporting information? | | | | |
| 5 | Is the facility subject to Minor NSR requirements? If the answer is "YES" , answer 6a, 6b and 6c as applicable. If the answer is "NO", skip to 7. | | | | |
| 6.a | If the facility chooses to implement RACT, is the RACT determination included for the affected pollutants for all affected emission units? | | | | |
| 6.b | If the facility chooses to demonstrate compliance with NAAQS by screen modeling, is the modeling analysis included? | | | | |
| 6.c | If refined modeling has been conducted, is a comprehensive modeling report along with all modeling files included? | | | | |
| 7 | Does the application include an equipment list with the type, name, make, model, serial number, maximum rated capacity, and date of manufacture? | | | | |
| 8 | Does the application include an identification and description of Pollution Controls? (if applicable) | | | | |
| 9 | For any application component claimed as confidential, are the requirements of AR.S. 49-432 and A.A.C. R18-2-305 addressed? | | | | |
| 10 | For any current non-compliance issue, is a compliance schedule attached? | | | | |
| 11 | For minor permit revision that will make a modification upon submittal of application, has a suggested draft permit been attached? | | | | |

# APPENDIX B

## Total Facility Emission Calculations

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Emission Totals - Emission Units**

| Pollutant | | EMISSION UNITS Potential Emissions (tpy) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | A - Line Paint Booth (EP1) | B - Line Paint Booth (EP2) | C - Line Paint Booth (EP7) | Pulley Paint Booth (EP3/EP4) | Wash Booth Oven (EP5) Combustion | Powder Paint Cure Oven (EP6) Combustion | Total Facility | Air Permit Limited |
| **Criteria Pollutants** | | | | | | | | | |
| PM | | 0.90 | 0.90 | 0.90 | 0.76 | 1.31E-01 | 1.31E-01 | **3.71** | N/A |
| $PM_{10}$ | | 0.98 | 0.98 | 0.98 | 0.79 | 1.31E-01 | 1.31E-01 | **3.99** | N/A |
| $PM_{2.5}$ | | 0.76 | 0.76 | 0.76 | 0.58 | 1.31E-01 | 1.31E-01 | **3.11** | N/A |
| $SO_2$ | | N/A | N/A | N/A | N/A | 1.03E-02 | 1.03E-02 | **2.06E-02** | N/A |
| $NO_x$ | | N/A | N/A | N/A | N/A | 1.72E+00 | 1.72E+00 | **3.44** | N/A |
| VOC | | 57.87 | 57.87 | 57.87 | 61.28 | 9.45E-02 | 9.45E-02 | **235.09** | 90.00 |
| CO | | N/A | N/A | N/A | N/A | 1.44 | 1.44 | **2.89** | N/A |
| Lead | | N/A | N/A | N/A | N/A | 8.59E-06 | 8.59E-06 | **1.72E-05** | N/A |
| **HAPs:** | | | | | | | | | |
| Naphthalene | 91-20-3 | 1.83 | 1.83 | 1.83 | 1.94 | 1.05E-05 | 1.05E-05 | **7.44** | 9.00 |
| Ethylbenzene | 100-41-4 | 1.42 | 1.42 | 1.42 | 1.50 | | | **5.75** | 9.00 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.71 | 0.71 | 0.71 | 0.75 | | | **2.86** | 9.00 |
| Xylenes | 1330-20-7 | 0.05 | 0.05 | 0.05 | 0.05 | | | **0.19** | 9.00 |
| Cobalt Compounds | 7440-48-4 | | | | | 1.44E-06 | 1.44E-06 | **2.89E-06** | 9.00 |
| Benzene | 71-43-2 | | | | | 3.61E-05 | 3.61E-05 | **7.21E-05** | 9.00 |
| 1,4-Dichlorobenzene | 106-46-7 | | | | | 2.06E-05 | 2.06E-05 | **4.12E-05** | 9.00 |
| Formaldehyde | 50-00-0 | | | | | 1.29E-03 | 1.29E-03 | **2.58E-03** | 9.00 |
| Hexane | 110-54-3 | | | | | 3.09E-02 | 3.09E-02 | **6.18E-02** | 9.00 |
| Toluene | 108-88-3 | | | | | 5.84E-05 | 5.84E-05 | **1.17E-04** | 9.00 |
| POM (w/Naphthalene) | Various | | | | | 1.20E-05 | 1.20E-05 | **2.40E-05** | 9.00 |
| Arsenic | 7440-38-2 | | | | | 3.44E-06 | 3.44E-06 | **6.87E-06** | 9.00 |
| Beryllium | 7440-41-7 | | | | | 2.06E-07 | 2.06E-07 | **4.12E-07** | 9.00 |
| Cadmium | 7440-43-9 | | | | | 1.89E-05 | 1.89E-05 | **3.78E-05** | 9.00 |
| Chromium | 7440-47-3 | | | | | 2.40E-05 | 2.40E-05 | **4.81E-05** | 9.00 |
| Manganese | 7439-96-5 | | | | | 6.53E-06 | 6.53E-06 | **1.31E-05** | 9.00 |
| Mercury | 7439-97-6 | | | | | 4.47E-06 | 4.47E-06 | **8.93E-06** | 9.00 |
| Nickel | 7440-02-0 | | | | | 3.61E-05 | 3.61E-05 | **7.21E-05** | 9.00 |
| Selenium | 7782-49-2 | | | | | 4.12E-07 | 4.12E-07 | **8.24E-07** | 9.00 |
| Total HAP Emissions | | 4.00 | 4.00 | 4.00 | 4.24 | 3.24E-02 | 3.24E-02 | **16.31** | 22.50 |
| **Greenhouse Gases:** | | | | | | | | | |
| $CO_2$ | | N/A | N/A | N/A | N/A | 2,048 | 2,048 | **4,096** | N/A |
| $CH_4$ | | N/A | N/A | N/A | N/A | 3.86E-02 | 3.86E-02 | **7.72E-02** | N/A |
| $N_2O$ | | N/A | N/A | N/A | N/A | 3.86E-03 | 3.86E-03 | **7.72E-03** | N/A |
| Total GHG ($CO_2e$) | | N/A | N/A | N/A | N/A | 2,050 | 2,050 | **4,100** | N/A |

The Class II Air Quality Permit defines total facility synthetic minor limits for VOC, total HAPs and Greatest Single HAP to restrict the facility's potential emissions to below major source thresholds.

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Emission Totals - Trival Activities**

| | | TRIVIAL ACTIVITIES Potential Emissions (tpy) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | | Misc. Natural Gas Combustion | Misc. Propane Combustion | Cement Application | Adhesive Roll-On Booth | Assembly Vulcanizing Belt Cleaner | Crane Chain Cleaner | Plasma Cutting | Plasma Cutting - Messer |
| **Criteria Pollutants** | | | | | | | | | |
| PM | | 3.13E-04 | 1.41E-03 | N/A | N/A | N/A | N/A | 0.39 | 0.39 |
| $PM_{10}$ | | 3.13E-04 | 1.41E-03 | N/A | N/A | N/A | N/A | 0.39 | 0.39 |
| $PM_{2.5}$ | | 3.13E-04 | 1.41E-03 | N/A | N/A | N/A | N/A | 0.39 | 0.39 |
| $SO_2$ | | 2.47E-05 | 3.02E-03 | N/A | N/A | N/A | N/A | N/A | N/A |
| $NO_X$ | | 4.12E-03 | 2.61E-02 | N/A | N/A | N/A | N/A | N/A | N/A |
| VOC | | 2.27E-04 | 2.01E-03 | 0.18 | 0.82 | 4.50E-02 | 2.62E-01 | N/A | N/A |
| CO | | 3.46E-03 | 1.51E-02 | N/A | N/A | N/A | N/A | N/A | N/A |
| Lead | | 2.06E-08 | N/A | N/A | N/A | N/A | N/A | 1.35E-03 | 1.35E-03 |
| **HAPs:** | | | | | | | | | |
| Trichloroethylene | 79-01-6 | N/A | N/A | N/A | 1.76E-01 | N/A | N/A | N/A | N/A |
| Ethylbenzene | 100-41-4 | N/A | N/A | N/A | 8.42E-02 | N/A | N/A | N/A | N/A |
| 1,2-Epoxybutane | 106-88-7 | N/A | N/A | N/A | 5.87E-03 | N/A | N/A | N/A | N/A |
| Methyl Isobutyl Ketone | 108-10-1 | N/A | N/A | N/A | 3.07E-01 | N/A | N/A | N/A | N/A |
| Xylenes | 1330-20-7 | N/A | N/A | N/A | 3.11E-01 | 4.50E-04 | N/A | N/A | N/A |
| Benzene | 71-43-2 | 8.66E-08 | 3.79E-07 | N/A | N/A | N/A | 1.09E-03 | N/A | N/A |
| 1,4-Dichlorobenzene | 106-46-7 | 4.95E-08 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Formaldehyde | 50-00-0 | 3.09E-06 | 1.35E-05 | N/A | N/A | N/A | N/A | N/A | N/A |
| Hexane | 110-54-3 | 7.42E-05 | 3.25E-04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Naphthalene | 91-20-3 | 2.51E-08 | 1.10E-07 | N/A | N/A | N/A | N/A | N/A | N/A |
| Toluene | 108-88-3 | 1.40E-07 | 6.13E-07 | N/A | N/A | N/A | 2.26E-01 | N/A | N/A |
| POM (w/Naphthalene) | Various | 2.88E-08 | 1.28E-04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Arsenic | 7440-38-2 | 8.24E-09 | 3.61E-08 | N/A | N/A | N/A | N/A | N/A | N/A |
| Beryllium | 7440-41-7 | 4.95E-10 | 2.16E-09 | N/A | N/A | N/A | N/A | N/A | N/A |
| Cadmium | 7440-43-9 | 4.53E-08 | 1.98E-07 | N/A | N/A | N/A | N/A | N/A | N/A |
| Chromium | 7440-47-3 | 5.77E-08 | 2.52E-07 | N/A | N/A | N/A | N/A | 1.16E-01 | 1.16E-01 |
| Cobalt Compounds | 7440-48-4 | 3.46E-09 | 1.55E-05 | N/A | N/A | N/A | N/A | N/A | N/A |
| Manganese | 7439-96-5 | 1.57E-08 | 6.85E-08 | N/A | N/A | N/A | N/A | 3.86E-02 | 3.86E-02 |
| Mercury | 7439-97-6 | 1.07E-08 | 4.69E-08 | N/A | N/A | N/A | N/A | N/A | N/A |
| Nickel | 7440-02-0 | 8.66E-08 | 3.79E-07 | N/A | N/A | N/A | N/A | 1.04E-01 | 1.04E-01 |
| Selenium | 7782-49-2 | 9.89E-10 | 4.33E-09 | N/A | N/A | N/A | N/A | N/A | N/A |
| Total HAP Emissions | | 7.78E-05 | 4.84E-04 | N/A | 8.84E-01 | 4.50E-04 | 2.27E-01 | 2.58E-01 | 2.58E-01 |
| Greatest Single HAP | | 7.42E-05 | 3.25E-04 | N/A | 3.11E-01 | 4.50E-04 | 2.26E-01 | 1.16E-01 | 1.16E-01 |
| **Greenhouse Gases:** | | | | | | | | | |
| $CO_2$ | | 4.9 | 24.9 | N/A | N/A | N/A | N/A | N/A | N/A |
| $CH_4$ | | 9.27E-05 | 1.22E-03 | N/A | N/A | N/A | N/A | N/A | N/A |
| $N_2O$ | | 9.27E-06 | 2.43E-04 | N/A | N/A | N/A | N/A | N/A | N/A |
| Total GHG ($CO_2e$) | | 4.9 | 25.0 | N/A | N/A | N/A | N/A | N/A | N/A |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**A-Line Paint Booth (EP1)**

| | |
|---|---|
| Emission unit: | A - Line Paint Booth |
| Stack/Vent designation: | EP 1 |
| Pollution control equipment identification: | Panel Filters |
| Application Method: | Manual Spray Guns |
| Number of Spray Ports in the Booth: | 2 guns; *Air Spray Electrostatic; only one gun can be used at a time* |
| Maximum capacity for Tip Size: | 17 fl oz/min @ 40-50 psi |
| Operating Capacity: | 50% operating time because the booth is manual |
| Gun Application Rate: | 3.98 gal/hr |

*Calculation: Gun Application Rate = 17 oz/min * 1 gun operating at a time * 0.50 operating capacity / 128 oz/gal * 60 min/hr =3.98 gal/hr*

Gun Minimum Transfer Efficiency (%): 70% Electrostatic guns

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) | Solids Content (lb/gal) | Percent Thru Gun | Gun Application Rate (gal/hr) | |
|---|---|---|---|---|---|---|
| Max Primer Composition | 12.46 | 3.50 | 8.96 | 32.7% | 1.30 | *Paint Primer* |
| Representative Max Topcoat Composition | 9.72 | 3.23 | 6.02 | 42.3% | 1.68 | *Paint Topcoat* |
| Max Thinners Composition | 7.48 | 7.48 | 0.00 | 8.6% | 0.34 | *Paint Thinner /Ada* |
| Gun / Line Cleaner | 6.85 | 1.00 | 0.00 | 16.4% | 0.65 | *Line Cleaner* |

Calculations Summary - Paint Primer:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 8.96 | 3.50 | 15.34 | 97% | 0.105 | 0.46 |
| $PM_{10}$ | | 4.18 | 1.64 | 7.16 | 93% | 0.109 | 0.48 |
| $PM_{2.5}$ | | 2.56 | 1.00 | 4.39 | 92% | 0.080 | 0.35 |
| VOC | | 3.50 | 4.56 | 19.97 | 0% | 4.56 | 19.97 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Ethylbenzene | 100-41-4 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Total HAP Emissions | | | 0.32 | 1.42 | | 0.32 | 1.42 |

Calculations Summary - Paint Topcoat:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 6.02 | 3.33 | 14.60 | 97% | 0.10 | 0.44 |
| $PM_{10}$ | | 2.81 | 1.71 | 7.50 | 93% | 0.11 | 0.50 |
| $PM_{2.5}$ | | 1.72 | 1.16 | 5.09 | 92% | 0.09 | 0.41 |
| VOC | | 3.23 | 5.44 | 23.83 | 0% | 5.44 | 23.83 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.00016 | 2.70E-04 | 1.18E-03 | 0% | 2.70E-04 | 1.18E-03 |
| Ethylbenzene | 100-41-4 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.0064 | 0.01 | 0.05 | 0% | 0.01 | 0.05 |
| Total HAP Emissions | | | 0.33 | 1.46 | | 0.33 | 1.46 |

Calculations Summary - Paint Thinner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 7.48 | 2.56 | 11.21 | 0% | 2.56 | 11.21 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.75 | 0.26 | 1.12 | 0% | 0.26 | 1.12 |
| Total HAP Emissions | | | 0.26 | 1.12 | | 0.26 | 1.12 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**A-Line Paint Booth (EP1)**

Calculations Summary - Line Purge / Gun Cleaner:

| Pollutant | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|
| VOC | 1.00 | 0.65 | 2.85 | 0% | 0.65 | 2.85 |
| HAPs: | | | | | | |
| No HAPs | | | | | | |
| Total HAP Emissions | | 0.00 | 0.00 | | 0.00 | 0.00 |

**Emissions Summary - Total Paint Booth Emissions**

| Pollutant | | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|
| PM | | 0.21 | 0.90 |
| $PM_{10}$ | | 0.22 | 0.98 |
| $PM_{2.5}$ | | 0.17 | 0.76 |
| VOC | | 13.21 | 57.87 |
| HAPs: | | | |
| Naphthalene | 91-20-3 | 0.42 | 1.83 |
| Ethylbenzene | 100-41-4 | 0.32 | 1.42 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.01 | 0.05 |
| Total HAP Emissions | | 0.91 | 4.00 |

Gun transfer efficiency for particulate and inorganic HAP emissions based on Minnesota Pollution Control Agency instructions for calculating PTE from painting operations, Table 2. http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/emission-calculations/painting/coating-operations-instructions-for-emission-calculation-spreadsheet.html
Inorganic HAP (i.e., cobalt compounds) considered particulate type emissions.
Control efficiency for $PM_{10}$ and $PM_{2.5}$ from AP-42 Appendix B Table B.2-3 (cont.) for mat or panel filter - mist collector. Particle size distribution data for determining PM10 and PM2.5 emissions was obtained from AP-42 Appendix B.1 Figure 4.2.2.8.

| Aerodynamic Particle Size Diameter | Control Efficiency | Cumulative wt. % | Percent of Particle Size that Comprises $PM_{10}$ Emissions |
|---|---|---|---|
| 0 - 2.5 | 92% | 28.6% | 61% |
| 2.5- 6 | 94% | 38.2% | 82% |
| 6 - 10 | 97% | 46.7% | 100% |
| Cumulative $PM_{10}$ | 93% | | |

Calculations for PM/PM10/PM6/PM2.5 Cut Emission Factors: See AP-42 Appendix B.1, Table 4.2.2.8; Appendix B.2, Figure B.2-1

| | Primer | | Topcoat | |
|---|---|---|---|---|
| Pollutant | Emissions (lb/hr) | Cut (lb/hr) | Emissions (lb/hr) | Cut (lb/hr) |
| PM | 11.67 | 6.22 | 10.13 | 5.40 |
| $PM_{10}$ | 5.45 | 0.99 | 4.73 | 0.86 |
| $PM_6$ | 4.46 | 1.12 | 3.87 | 0.97 |
| $PM_{2.5}$ | 3.34 | 3.34 | 2.90 | 3.87 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**B-Line Paint Booth (EP2)**

| | |
|---|---|
| Emission unit: | B - Line Paint Booth *(was formerly named C-Line)* |
| Stack/Vent designation: | EP 2 |
| Pollution control equipment identification: | Panel Filters |
| Application Method: | Manual Spray Guns |
| Number of Spray Ports in the Booth: | 2 guns; *Air Spray Electrostatic; only one gun can be used at a time* |
| Maximum capacity for Tip Size: | 17 fl oz/min @ 40-50 psi |
| Operating Capacity: | 50% operating time because the booth is manual |
| Gun Application Rate: | 3.98 gal/hr |

*Calculation: Gun Application Rate = 17 oz/min * 1 gun operating at a time * 0.50 operating capacity / 128 oz/gal * 60 min/hr =3.98 gal/hr*

Gun Minimum Transfer Efficiency (%): 70% Electrostatic guns

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) | Solids Content (lb/gal) | Percent Thru Gun | Gun Application Rate (gal/hr) | |
|---|---|---|---|---|---|---|
| Max Primer Composition | 12.46 | 3.50 | 8.96 | 32.7% | 1.30 | *Paint Primer* |
| Representative Max Topcoat Composition | 9.72 | 3.23 | 6.02 | 42.3% | 1.68 | *Paint Topcoat* |
| Max Thinners Composition | 7.48 | 7.48 | 0.00 | 8.6% | 0.34 | *Paint Thinner /Ada* |
| Gun / Line Cleaner | 6.85 | 1.00 | 0.00 | 16.4% | 0.65 | *Line Cleaner* |

Calculations Summary - Paint Primer:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 8.96 | 3.50 | 15.34 | 97% | 0.105 | 0.46 |
| $PM_{10}$ | | 4.18 | 1.64 | 7.16 | 93% | 0.109 | 0.48 |
| $PM_{2.5}$ | | 2.56 | 1.00 | 4.39 | 92% | 0.080 | 0.35 |
| VOC | | 3.50 | 4.56 | 19.97 | 0% | 4.56 | 19.97 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Ethylbenzene | 100-41-4 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Total HAP Emissions | | | 0.32 | 1.42 | | 0.32 | 1.42 |

Calculations Summary - Paint Topcoat:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 6.02 | 3.33 | 14.60 | 97% | 0.10 | 0.44 |
| $PM_{10}$ | | 2.81 | 1.71 | 7.50 | 93% | 0.11 | 0.50 |
| $PM_{2.5}$ | | 1.72 | 1.16 | 5.09 | 92% | 0.09 | 0.41 |
| VOC | | 3.23 | 5.44 | 23.83 | 0% | 5.44 | 23.83 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.00016 | 2.70E-04 | 1.18E-03 | 0% | 2.70E-04 | 1.18E-03 |
| Ethylbenzene | 100-41-4 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.0064 | 1.08E-02 | 4.73E-02 | 0% | 1.08E-02 | 4.73E-02 |
| Total HAP Emissions | | | 0.33 | 1.46 | | 0.33 | 1.46 |

Calculations Summary - Paint Thinner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 7.48 | 2.56 | 11.21 | 0% | 2.56 | 11.21 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.75 | 0.26 | 1.12 | 0% | 0.26 | 1.12 |
| Total HAP Emissions | | | 0.26 | 1.12 | | 0.26 | 1.12 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**B-Line Paint Booth (EP2)**

Calculations Summary - Line Purge / Gun Cleaner:

| Pollutant | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|
| VOC | 1.00 | 0.65 | 2.85 | 0% | 0.65 | 2.85 |
| HAPs: | | | | | | |
| No HAPs | | | | | | |
| Total HAP Emissions | | 0.00 | 0.00 | | 0.00 | 0.00 |

**Emissions Summary - Total Paint Booth Emissions**

| Pollutant | | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|
| PM | | 0.21 | 0.90 |
| $PM_{10}$ | | 0.22 | 0.98 |
| $PM_{2.5}$ | | 0.17 | 0.76 |
| VOC | | 13.21 | 57.87 |
| HAPs: | | | |
| Naphthalene | 91-20-3 | 0.42 | 1.83 |
| Ethylbenzene | 100-41-4 | 0.32 | 1.42 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.01 | 0.05 |
| Total HAP Emissions | | 0.91 | 4.00 |

Gun transfer efficiency for particulate and inorganic HAP emissions based on Minnesota Pollution Control Agency instructions for calculating PTE from painting operations, Table 2. http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/emission-calculations/painting/coating-operations-instructions-for-emission-calculation-spreadsheet.html
Inorganic HAP (i.e., cobalt compounds) considered particulate type emissions.
Control efficiency for $PM_{10}$ and $PM_{2.5}$ from AP-42 Appendix B Table B.2-3 (cont.) for mat or panel filter - mist collector. Particle size distribution data for determining PM10 and PM2.5 emissions was obtained from AP-42 Appendix B.1 Figure 4.2.2.8.

| Aerodynamic Particle Size Diameter | Control Efficiency | Cumulative wt. % | Percent of Particle Size that Comprises $PM_{10}$ Emissions |
|---|---|---|---|
| 0 - 2.5 | 92% | 28.6% | 61% |
| 2.5- 6 | 94% | 38.2% | 82% |
| 6 - 10 | 97% | 46.7% | 100% |
| Cumulative $PM_{10}$ | 93% | | |

Calculations for PM/PM10/PM6/PM2.5 Cut Emission Factors: See AP-42 Appendix B.1, Table 4.2.2.8; Appendix B.2, Figure B.2-1

| | Primer | | Topcoat | |
|---|---|---|---|---|
| Pollutant | Emissions (lb/hr) | Cut (lb/hr) | Emissions (lb/hr) | Cut (lb/hr) |
| PM | 11.67 | 6.22 | 10.13 | 5.40 |
| $PM_{10}$ | 5.45 | 0.99 | 4.73 | 0.86 |
| $PM_6$ | 4.46 | 1.12 | 3.87 | 0.97 |
| $PM_{2.5}$ | 3.34 | 3.34 | 2.90 | 3.87 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**C-Line Paint Booth (EP7)**

| | |
|---|---|
| Emission unit: | C - Line Paint Booth *(was formerly named B-Line)* |
| Stack/Vent designation: | EP 7 |
| Pollution control equipment identification: | Panel Filters |
| Application Method: | Manual Spray Guns |
| Number of Spray Ports in the Booth: | 2 guns; *Air Spray Electrostatic; only one gun can be used at a time* |
| Maximum capacity for Tip Size: | 17 fl oz/min @ 40-50 psi |
| Operating Capacity: | 50% operating time because the booth is manual |
| Gun Application Rate: | 3.98 gal/hr |

*Calculation: Gun Application Rate = 17 oz/min * 1 gun operating at a time * 0.50 operating capacity / 128 oz/gal * 60 min/hr =3.98 gal/hr*

| | |
|---|---|
| Gun Minimum Transfer Efficiency (%): | 70% Electrostatic guns |

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) | Solids Content (lb/gal) | Percent Thru Gun | Gun Application Rate (gal/hr) | |
|---|---|---|---|---|---|---|
| Max Primer Composition | 12.46 | 3.50 | 8.96 | 32.7% | 1.30 | *Paint Primer* |
| Representative Max Topcoat Composition | 9.72 | 3.23 | 6.02 | 42.3% | 1.68 | *Paint Topcoat* |
| Max Thinners Composition | 7.48 | 7.48 | 0.00 | 8.6% | 0.34 | *Paint Thinner /Ada* |
| Gun / Line Cleaner | 6.85 | 1.00 | 0.00 | 16.4% | 0.65 | *Line Cleaner* |

Calculations Summary - Paint Primer:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 8.96 | 3.50 | 15.34 | 97% | 0.105 | 0.46 |
| $PM_{10}$ | | 4.18 | 1.64 | 7.16 | 93% | 0.109 | 0.48 |
| $PM_{2.5}$ | | 2.56 | 1.00 | 4.39 | 92% | 0.080 | 0.35 |
| VOC | | 3.50 | 4.56 | 19.97 | 0% | 4.56 | 19.97 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Ethylbenzene | 100-41-4 | 0.12 | 0.162 | 0.71 | 0% | 0.162 | 0.71 |
| Total HAP Emissions | | | 0.32 | 1.42 | | 0.32 | 1.42 |

Calculations Summary - Paint Topcoat:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 6.02 | 3.33 | 14.60 | 97% | 0.10 | 0.44 |
| $PM_{10}$ | | 2.81 | 1.71 | 7.50 | 93% | 0.11 | 0.50 |
| $PM_{2.5}$ | | 1.72 | 1.16 | 5.09 | 92% | 0.09 | 0.41 |
| VOC | | 3.23 | 5.44 | 23.83 | 0% | 5.44 | 23.83 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.00016 | 2.70E-04 | 1.18E-03 | 0% | 2.70E-04 | 1.18E-03 |
| Ethylbenzene | 100-41-4 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.10 | 0.16 | 0.71 | 0% | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.0064 | 1.08E-02 | 4.73E-02 | 0% | 1.08E-02 | 4.73E-02 |
| Total HAP Emissions | | | 0.33 | 1.46 | | 0.33 | 1.46 |

Calculations Summary - Paint Thinner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 7.48 | 2.56 | 11.21 | 0% | 2.56 | 11.21 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.75 | 0.26 | 1.12 | 0% | 0.26 | 1.12 |
| Total HAP Emissions | | | 0.26 | 1.12 | | 0.26 | 1.12 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**C-Line Paint Booth (EP7)**

Calculations Summary - Line Purge / Gun Cleaner:

| Pollutant | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|
| VOC | 1.00 | 0.65 | 2.85 | 0% | 0.65 | 2.85 |
| HAPs: | | | | | | |
| No HAPs | | | | | | |
| Total HAP Emissions | | 0.00 | 0.00 | | 0.00 | 0.00 |

**Emissions Summary - Total Paint Booth Emissions**

| Pollutant | | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|
| PM | | 0.21 | 0.90 |
| $PM_{10}$ | | 0.22 | 0.98 |
| $PM_{2.5}$ | | 0.17 | 0.76 |
| VOC | | 13.21 | 57.87 |
| HAPs: | | | |
| Naphthalene | 91-20-3 | 0.42 | 1.83 |
| Ethylbenzene | 100-41-4 | 0.32 | 1.42 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.16 | 0.71 |
| Xylenes | 1330-20-7 | 0.01 | 0.05 |
| Total HAP Emissions | | 0.91 | 4.00 |

Gun transfer efficiency for particulate and inorganic HAP emissions based on Minnesota Pollution Control Agency instructions for calculating PTE from painting operations, Table 2. http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/emission-calculations/painting/coating-operations-instructions-for-emission-calculation-spreadsheet.html
Inorganic HAP (i.e., cobalt compounds) considered particulate type emissions.
Control efficiency for $PM_{10}$ and $PM_{2.5}$ from AP-42 Appendix B Table B.2-3 (cont.) for mat or panel filter - mist collector. Particle size distribution data for determining PM10 and PM2.5 emissions was obtained from AP-42 Appendix B.1 Figure 4.2.2.8.

| Aerodynamic Particle Size Diameter | Control Efficiency | Cumulative wt. % | Percent of Particle Size that Comprises $PM_{10}$ Emissions |
|---|---|---|---|
| 0 - 2.5 | 92% | 28.6% | 61% |
| 2.5- 6 | 94% | 38.2% | 82% |
| 6 - 10 | 97% | 46.7% | 100% |
| Cumulative $PM_{10}$ | 93% | | |

Calculations for PM/PM10/PM6/PM2.5 Cut Emission Factors: See AP-42 Appendix B.1, Table 4.2.2.8; Appendix B.2, Figure B.2-1

| | Primer | | Topcoat | |
|---|---|---|---|---|
| Pollutant | Emissions (lb/hr) | Cut (lb/hr) | Emissions (lb/hr) | Cut (lb/hr) |
| PM | 11.67 | 6.22 | 10.13 | 5.40 |
| $PM_{10}$ | 5.45 | 0.99 | 4.73 | 0.86 |
| $PM_6$ | 4.46 | 1.12 | 3.87 | 0.97 |
| $PM_{2.5}$ | 3.34 | 3.34 | 2.90 | 3.87 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Pulley Paint Booth (Touch-Up) (EP3/EP4)**

| | |
|---|---|
| Emission unit: | Pulley Paint Touch-Up Booth |
| Stack/Vent designation: | EP 3/ EP 4 (two stack vents) |
| Pollution control equipment identification: | Panel Filters |
| Application Method: | Manual Spray Guns |
| Number of Spray Ports in the Booth: | 2 guns; *HVLP; only one gun can be used at a time* |
| Maximum capacity for Tip Size: | 18 fl oz/min @ 40-50 psi Current Operations: |
| Operating Capacity: | 50% operating time because the booth is manual |
| Gun Application Rate: | 4.22 gal/hr |

*Calculation: Gun Application Rate = 18 oz/min * 1 gun operating at a time * 0.50 operating capacity / 128 oz/gal * 60 min/hr =4.22 gal/hr*

Gun Minimum Transfer Efficiency (%): 75% HVLP

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) | Solids Content (lb/gal) | Percent Thru Gun | Gun Application Rate (gal/hr) | |
|---|---|---|---|---|---|---|
| Max Primer Composition | 12.46 | 3.50 | 8.96 | 33% | 1.38 | *Paint Primer* |
| Representative Max Topcoat Composition | 9.72 | 3.23 | 6.02 | 42% | 1.78 | *Paint Topcoat* |
| Max Thinners Composition | 7.48 | 7.48 | 0.00 | 8.6% | 0.36 | *Paint Thinner /Ada* |
| Gun / Line Cleaner | 6.85 | 1.00 | 0.00 | 16% | 0.69 | *Line Cleaner* |

Calculations Summary - Primer:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 8.96 | 3.09 | 13.53 | 97% | 0.093 | 0.41 |
| $PM_{10}$ | | 4.18 | 1.44 | 6.32 | 93% | 0.096 | 0.42 |
| $PM_{2.5}$ | | 2.56 | 0.88 | 3.87 | 92% | 0.071 | 0.31 |
| VOC | | 3.50 | 4.83 | 21.15 | 0% | 4.83 | 21.15 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.12 | 0.17 | 0.75 | 0% | 0.17 | 0.75 |
| Ethylbenzene | 100-41-4 | 0.12 | 0.17 | 0.75 | 0% | 0.17 | 0.75 |
| Total HAP Emissions | | | 0.34 | 1.51 | | 0.34 | 1.51 |

Calculations Summary - Paint Topcoat:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 6.02 | 2.68 | 11.75 | 97% | 0.08 | 0.35 |
| $PM_{10}$ | | 2.81 | 1.25 | 5.49 | 93% | 0.08 | 0.37 |
| $PM_{2.5}$ | | 1.72 | 0.77 | 3.36 | 92% | 0.06 | 0.27 |
| VOC | | 3.23 | 5.76 | 25.23 | 0% | 5.76 | 25.23 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.00016 | 2.86E-04 | 1.25E-03 | 0% | 2.86E-04 | 1.25E-03 |
| Ethylbenzene | 100-41-4 | 0.10 | 0.17 | 0.75 | 0% | 0.17 | 0.75 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.10 | 0.17 | 0.75 | 0% | 0.17 | 0.75 |
| Xylenes | 1330-20-7 | 0.0064 | 1.14E-02 | 5.01E-02 | 0% | 1.14E-02 | 5.01E-02 |
| Total HAP Emissions | | | 0.35 | 1.55 | | 0.35 | 1.55 |

Calculations Summary - Paint Thinner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 7.48 | 2.71 | 11.87 | 0% | 2.71 | 11.87 |
| HAPs: | | | | | | | |
| Naphthalene | 91-20-3 | 0.75 | 0.27 | 1.19 | 0% | 0.27 | 1.19 |
| Total HAP Emissions | | | 0.27 | 1.19 | | 0.27 | 1.19 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Pulley Paint Booth (Touch-Up) (EP3/EP4)**

Calculations Summary - Gun/Line Cleaner:

| Pollutant | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|
| VOC | 1.00 | 0.69 | 3.02 | 0% | 0.69 | 3.02 |
| HAPs: | | | | | | |
| No HAPs | | | | | | |
| Total HAP Emissions | | 0.00 | 0.00 | | 0.00 | 0.00 |

**Emissions Summary - Total Paint Booth Emissions**

| Pollutant | | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) | Maximum Controlled Emissions per Stack (lbs/hr) |
|---|---|---|---|---|
| PM | | 0.17 | 0.76 | 0.09 |
| $PM_{10}$ | | 0.18 | 0.79 | 0.09 |
| $PM_{2.5}$ | | 0.13 | 0.58 | 0.07 |
| VOC | | 13.99 | 61.28 | 7.00 |
| HAPs: | | | | |
| Naphthalene | 91-20-3 | 0.44 | 1.94 | 0.22 |
| Ethylbenzene | 100-41-4 | 0.34 | 1.50 | 0.17 |
| Methyl Isobutyl Ketone | 108-10-1 | 0.17 | 0.75 | 0.09 |
| Xylenes | 1330-20-7 | 0.01 | 0.05 | 0.006 |
| Total HAP Emissions | | 0.97 | 4.24 | 0.48 |

Emissions are divided evenly between the two pulley paint booth stacks.
Gun transfer efficiency for particulate and inorganic HAP emissions based on Minnesota Pollution Control Agency instructions for calculating PTE from painting operations, Table 2. http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/emission-calculations/painting/coating-operations-instructions-for-emission-calculation-spreadsheet.html
Inorganic HAP (i.e., cobalt compounds) considered particulate type emissions.
Control efficiency for $PM_{10}$ and $PM_{2.5}$ from AP-42 Appendix B Table B.2-3 (cont.) for mat or panel filter - mist collector. Particle size distribution data for determining PM10 and PM2.5 emissions was obtained from AP-42 Appendix B.1 Figure 4.2.2.8.

| Aerodynamic Particle Size Diameter | Control Efficiency | Cumulative wt. % < Stated Size | Percent of Particle Size that Comprises $PM_{10}$ Emissions |
|---|---|---|---|
| 0 - 2.5 | 92% | 28.6% | 61% |
| 2.5- 6 | 94% | 38.2% | 82% |
| 6 - 10 | 97% | 46.7% | 100% |
| Cumulative $PM_{10}$ | 93% | | |

Calculations for PM/PM10/PM6/PM2.5 Cut Emission Factors: See AP-42 Appendix B.1, Table 4.2.2.8; Appendix B.2, Figure B.2-1

| | Primer | | Topcoat | |
|---|---|---|---|---|
| Pollutant | Emissions (lb/hr) | Cut (lb/hr) | Emissions (lb/hr) | Cut (lb/hr) |
| PM | 12.36 | 6.59 | 10.73 | 5.72 |
| $PM_{10}$ | 5.77 | 1.05 | 5.01 | 0.91 |
| $PM_6$ | 4.72 | 1.19 | 4.10 | 1.03 |
| $PM_{2.5}$ | 3.53 | 3.53 | 3.07 | 3.07 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Paint/Coatings Material Data**

| Product # | Product Name | 12-Month (Jan - Dec 2023) Actual Use (Gal) | Density (lb/gal) | VOC (lb/gal) | Solids (% by wt) | Solids (lb/gal) | Total HAP (lb/gal) | Organic HAP (lb/gal) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Naphthalene | Ethylbenzene | Methyl Isobutyl Ketone | Xylenes |
| CAS: | | | | | | | | 91-20-3 | 100-41-4 | 108-10-1 | 1330-20-7 |
| **Cleaner - Gun and Line** | | | | | | | | | | | |
| **Routine Materials -No/Low HAP Containing** | | | | | | | | | | | |
| 12-00120 | MAK N-4008 | 945.0 | 6.81 | 0.00 | 0.00% | 0.00 | 0.00 | | | | |
| **Low Volume Materials / High HAP Containing** | | | | | | | | | | | |
| 12-00021 | Gun Cleaner | 235.0 | 7.01 | 5.00 | 0.00% | 0.00 | 0.00 | | | | |
| *Ratio:* | *Routine Materials -No/Low HAP Containing* | *80.1%* | | | | | | | | | |
| | *Low Volume Materials / High HAP Containing* | *19.9%* | | | | | | | | | |
| | *Total Gun and Line Cleaning Materials* | *100.0%* | | | | | | | | | |
| | **Representative Gun Cleaner Composition:** | **1180.0** | 6.85 | 1.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Painting/Coatings - Thinners** | | | | | | | | | | | |
| 12-00018, 12-0 | D-150 Thinner | 590.0 | 7.48 | 7.48 | 0.00% | 0.00 | 0.75 | 0.75 | | | |
| 12-00534 | C-11 Ketone Thinner | 27.0 | 7.00 | 7.00 | 0.00% | 0.00 | 0.00 | | | | |
| | **Max Routine Thinner Composition:** | **617.0** | 7.48 | 7.48 | | 0.00 | 0.75 | 0.75 | 0.00 | 0.00 | 0.00 |
| **Painting/Coat** | **Gallons** | | | | | | | | | | |
| 12-00586 | Beige Urethane Ultra Primer (as applied) | 154.0 | 10.38 | 2.86 | 59.61% | 6.19 | 0.08 | | 0.08 | | |
| 12-00643 | 3.5 Superior Gray Fast Primer | 2095.0 | 12.46 | 3.50 | 71.90% | 8.96 | 0.25 | 0.12 | 0.12 | | |
| 12- | Superior Beige Primer | 100.0 | 12.37 | 3.40 | 71.70% | 8.87 | 0.25 | 0.12 | 0.12 | | |
| | **Max Primer Composition:** | **2349.0** | 12.46 | 3.50 | | 8.96 | 0.25 | 0.12 | 0.12 | 0.00 | 0.00 |
| **Painting/Coat** | **Gallons** | | | | | | | | | | |
| **Routine Materials -No/Low HAP Containing** | | | | | | | | | | | |
| 12-00010 | Frost White Enamel | 230.0 | 9.51 | 3.00 | 57.00% | 5.42 | 0.19 | | 0.10 | 0.10 | |
| 12-00163 | Orange/Red H/C Enamel | 250.0 | 8.79 | 2.80 | 51.30% | 4.51 | 0.18 | | 0.09 | 0.09 | |
| 12-00589 | 3.5 Traffic Yellow Enamel RAL1023 | 240.0 | 9.14 | 3.10 | 58.10% | 5.31 | 0.09 | | | 0.09 | |
| 12-00634 | 2.8 Yellow Enamel RAL1021 | 300.0 | 8.76 | 1.80 | 54.80% | 4.80 | 0.18 | | 0.09 | 0.09 | |
| 12-00635 | Gray, Window, RAL704, IB05-43475 | 482.0 | 8.95 | 3.00 | 57.30% | 5.13 | 0.18 | | 0.09 | 0.09 | |
| 12-00636 | 3.5 Graphite Grey H/C Enamel | 380.0 | 8.39 | 3.20 | 53.70% | 4.51 | 0.17 | | 0.08 | 0.08 | |
| 12-01124 | 3.5 Superior Sandstone Enamel | 870.0 | 9.67 | 3.10 | 59.60% | 5.76 | 0.00 | | | | |
| | **Max Topcoat Routine Materials - LOW HAP Composition:** | **2752.0** | 9.67 | 3.20 | | 5.76 | 0.19 | 0.00 | 0.10 | 0.10 | 0.00 |
| **Low Volume Materials - No/ Low HAP Containing** | | | | | | | | | | | |
| 12-00020 | 2.8 Black Gloss Enamel | 10.0 | 8.26 | 2.10 | 52.90% | 4.37 | 0.17 | | 0.08 | 0.08 | |
| 12-00158 | Superior Beige (PCMM-8-0899) (as applied) | 5.0 | 9.45 | 0.90 | 90.10% | 8.51 | 0.00 | | | | |
| 12-00299 | RAL 8014 Sepia Brown Enamel Pulleys (KCMM | 24.0 | 8.53 | 2.80 | 51.30% | 4.38 | 0.09 | | | 0.09 | |
| 12-00308, 12-01146 | RAL 7024 Graphite Grey (as applied) | 29.0 | 10.13 | 2.66 | 74.35% | 7.53 | 0.00 | | | | |
| 12-00584 | Traffic Yelllow Urethane | 15.0 | 8.59 | 3.50 | 60.50% | 5.20 | 0.00 | | | | |
| 12-00588 | Traffic Blue RAL5017 (KCMM-7-3243) | 35.0 | 8.46 | 2.00 | 56.10% | 4.75 | 0.08 | | | 0.08 | |
| 12-00619 | 3.5 SUPERIOR BEIGE H/C ENAMEL | 20.0 | 8.94 | 3.08 | 65.55% | 5.86 | 0.03 | | 0.01 | 0.02 | |
| 12-01160 | RAL 1003 Match Scott Equip (KCMM-3-1481) | 10.0 | 8.47 | 2.80 | 53.50% | 4.53 | 0.08 | | | 0.08 | |
| 12-01210 | High Crush Orange (KCMM-4-3627) | 10.0 | 9.15 | 2.83 | 56.90% | 5.21 | 0.05 | | | 0.05 | |
| 12-10030 | Kenworth Orange N0789 Poly | 5.0 | 8.59 | 3.20 | 38.30% | 3.29 | 0.09 | | 0.09 | | |
| 12-22531 | Safety Yellow 12-00195 (KCMM-3-2170) | 45.0 | 8.36 | 2.80 | 52.50% | 4.39 | 0.08 | | | 0.08 | |
| 12- | F77XXW RAL 9016 Traffic White (KCMM-1-33 | 72.0 | 10.19 | 2.10 | 63.40% | 6.46 | 0.10 | | | 0.10 | |
| **oat Low Volume - HAP Containing Materials Composition:** | | **280.0** | 10.19 | 3.50 | | 8.51 | 0.17 | 0.00 | 0.09 | 0.10 | 0.00 |
| **Special Order / Low Volume Materials / High HAP Containing** | | | | | | | | | | | |
| 12-00092 | New Cedar Rapids Gray Enamel (KCMM-0-10 | 5.0 | 9.73 | 4.60 | 52.80% | 5.14 | 4.96 | 0.10 | 0.97 | | 3.89 |
| **ax Topcoat Low Volume - High HAP Materials Composition:** | | **5.0** | 9.73 | 4.60 | | 5.14 | 4.96 | 0.10 | 0.97 | 0.00 | 3.89 |
| *Ratio:* | *Routine Materials -No/Low HAP Containing* | *90.6%* | | | | | | | | | |
| | *Low Volume Materials - No/ Low HAP Containing* | *9.2%* | | | | | | | | | |
| *Special Order / Low Volume Materials / High HAP Containing* | | *0.2%* | | | | | | | | | |
| | *Total Topcoat Materials* | *100.0%* | | | | | | | | | |
| | **Representative Max Topcoat Composition:** | **3037.0** | 9.72 | 3.23 | | 6.02 | 0.20 | 0.00016 | 0.096 | 0.096 | 0.0064 |

Notes:
The "max primer composition" characteristics were determined by calculating the maximum VOC, solids and HAP content of the applicable materials. The resulting values were used to determine the PTE at the facility.
The "max topcoat composition" characteristics were determined by calculating the maximum VOC, solids and HAP content of the applicable materials, with a ratio calculated for high-volume usage materials (e.g., routine / standard colors) and low-volume usage materials (e.g., special or custom colors). The resulting values were used to determine the PTE at the facility.

| Material Usage through Guns | Gallons | % of Total |
|---|---|---|
| **PAINT:** | | |
| Total Primers | 2,349 | 32.7% |
| Total Topcoats | 3,037 | 42.3% |
| **TOTAL PAINT:** | **5,386** | **75.0%** |
| **SOLVENT:** | | |
| Thinners - for Primer & Topcoats | 617 | 8.6% |
| Line Purge / Gun Cleaner (MAK) | 1,180 | 16.4% |
| **TOTAL SOLVENT:** | **1,797** | **25.0%** |
| **TOTAL PAINTS & SOLVENTS:** | **7,183** | **100.0%** |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Water Wash Booth Combustion (EP5)**

| | |
|---|---|
| Emission Unit | Water Wash Booth Oven |
| Stack/Vent Designation Number: | EP 5 |
| Control Equipment: | None |
| Maximum Rated Capacity: | 4 million BTU/hr *(2 burners, 2 MMBtu/hr each)* |
| Fuel Type | Natural Gas |
| Heat Value: | 1020 Btu/cf |
| Fuel Consumption Rate: | 3.92E-03 MMscf/hr |

Calculations Summary:

| Pollutant | | Pollutant Emission Factor (lb/MMscf) | Pollutant Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tpy) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 7.6 | 2.98E-02 | 1.31E-01 | 0% | 2.98E-02 | 1.31E-01 |
| $PM_{10}$ | | 7.6 | 2.98E-02 | 1.31E-01 | 0% | 2.98E-02 | 1.31E-01 |
| $PM_{2.5}$ | | 7.6 | 2.98E-02 | 1.31E-01 | 0% | 2.98E-02 | 1.31E-01 |
| $SO_2$ | | 0.6 | 2.35E-03 | 1.03E-02 | 0% | 2.35E-03 | 1.03E-02 |
| $NO_X$ | | 100 | 0.39 | 1.72 | 0% | 0.39 | 1.72 |
| VOC | | 5.5 | 2.16E-02 | 9.45E-02 | 0% | 2.16E-02 | 9.45E-02 |
| CO | | 84 | 0.33 | 1.44 | 0% | 0.33 | 1.44 |
| Lead | | 5.00E-04 | 1.96E-06 | 8.59E-06 | 0% | 1.96E-06 | 8.59E-06 |
| HAPs: | | | | | | | |
| Benzene | 71-43-2 | 2.1E-03 | 8.2E-06 | 3.61E-05 | 0% | 8.24E-06 | 3.61E-05 |
| 1,4-Dichlorobenzene | 106-46-7 | 1.2E-03 | 4.7E-06 | 2.06E-05 | 0% | 4.71E-06 | 2.06E-05 |
| Formaldehyde | 50-00-0 | 7.5E-02 | 2.9E-04 | 1.29E-03 | 0% | 2.94E-04 | 1.29E-03 |
| Hexane | 110-54-3 | 1.8E+00 | 7.1E-03 | 3.09E-02 | 0% | 7.06E-03 | 3.09E-02 |
| Naphthalene | 91-20-3 | 6.1E-04 | 2.4E-06 | 1.05E-05 | 0% | 2.39E-06 | 1.05E-05 |
| Toluene | 108-88-3 | 3.4E-03 | 1.3E-05 | 5.84E-05 | 0% | 1.33E-05 | 5.84E-05 |
| POM (w/Naphthalene) | Various | 7.0E-04 | 2.7E-06 | 1.20E-05 | 0% | 2.74E-06 | 1.20E-05 |
| Arsenic | 7440-38-2 | 2.0E-04 | 7.8E-07 | 3.44E-06 | 0% | 7.84E-07 | 3.44E-06 |
| Beryllium | 7440-41-7 | 1.2E-05 | 4.7E-08 | 2.06E-07 | 0% | 4.71E-08 | 2.06E-07 |
| Cadmium | 7440-43-9 | 1.1E-03 | 4.3E-06 | 1.89E-05 | 0% | 4.31E-06 | 1.89E-05 |
| Chromium | 7440-47-3 | 1.4E-03 | 5.5E-06 | 2.40E-05 | 0% | 5.49E-06 | 2.40E-05 |
| Cobalt Compounds | 7440-48-4 | 8.4E-05 | 3.3E-07 | 1.44E-06 | 0% | 3.29E-07 | 1.44E-06 |
| Manganese | 7439-96-5 | 3.8E-04 | 1.5E-06 | 6.53E-06 | 0% | 1.49E-06 | 6.53E-06 |
| Mercury | 7439-97-6 | 2.6E-04 | 1.0E-06 | 4.47E-06 | 0% | 1.02E-06 | 4.47E-06 |
| Nickel | 7440-02-0 | 2.1E-03 | 8.2E-06 | 3.61E-05 | 0% | 8.24E-06 | 3.61E-05 |
| Selenium | 7782-49-2 | 2.4E-05 | 9.4E-08 | 4.12E-07 | 0% | 9.41E-08 | 4.12E-07 |
| Total HAP Emissions | | | 7.40E-03 | 3.24E-02 | | 7.40E-03 | 3.24E-02 |
| Greenhouse Gases: | GWP | (lb/MMBtu) | | | | | |
| $CO_2$ | 1 | 116.89 | 467.6 | 2,048 | 0% | 467.6 | 2,048 |
| $CH_4$ | 25 | 2.20E-03 | 8.82E-03 | 3.86E-02 | 0% | 8.82E-03 | 3.86E-02 |
| $N_2O$ | 298 | 2.20E-04 | 8.82E-04 | 3.86E-03 | 0% | 8.82E-04 | 3.86E-03 |
| Total GHG ($CO_2e$) | | 117.01 | 468.0 | 2,050 | 0% | 468.0 | 2,050 |

Emissions factors from AP-42, Section 1.4 "Natural Gas Combustion"(7/98), Tables 1.4-1, -2, -3 and -4, <100 MMBtu.
1,4-Dichlorobenzene (CAS 106-46-7), an isomer of dichlorobenzene, is assumed equal to dichlorobenzene (CAS 25321-22-6).
Naphthalene is included in the Polycyclic Organic Matter (POM) emissions and is not double-counted in the total HAPs.
Total POM emission factor is equal to the sum of the individual POM compounds, including naphthalene.
GWP and Emission Factors obtained from 40 CFR Part 98. EF's converted from kg to lb.

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Powder Paint Cure Oven Combustion (EP6)**

| | |
|---|---|
| Emission Unit | Powder Paint Cure Oven |
| Stack/Vent Designation Number: | EP 6 |
| Control Equipment: | None |
| Maximum Rated Capacity: | 4 million BTU/hr |
| Fuel Type | Natural Gas |
| Heat Value: | 1020 Btu/cf |
| Fuel Consumption Rate: | 3.92E-03 MMscf/hr |

Calculations Summary:

| Pollutant | | Pollutant Emission Factor (lb/MMscf) | Pollutant Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tpy) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 7.60 | 2.98E-02 | 0.13 | 0% | 2.98E-02 | 1.31E-01 |
| $PM_{10}$ | | 7.60 | 2.98E-02 | 0.13 | 0% | 2.98E-02 | 1.31E-01 |
| $PM_{2.5}$ | | 7.60 | 2.98E-02 | 0.13 | 0% | 2.98E-02 | 1.31E-01 |
| $SO_2$ | | 0.60 | 2.35E-03 | 1.03E-02 | 0% | 2.35E-03 | 1.03E-02 |
| $NO_X$ | | 100.00 | 0.39 | 1.72 | 0% | 0.39 | 1.72 |
| VOC | | 5.50 | 2.16E-02 | 9.45E-02 | 0% | 2.16E-02 | 9.45E-02 |
| CO | | 84.00 | 0.33 | 1.44 | 0% | 0.33 | 1.44 |
| Lead | | 5.00E-04 | 1.96E-06 | 8.59E-06 | 0% | 1.96E-06 | 8.59E-06 |
| HAPs: | | | | | | | |
| Benzene | 71-43-2 | 2.1E-03 | 8.2E-06 | 3.61E-05 | 0% | 8.24E-06 | 3.61E-05 |
| 1,4-Dichlorobenzene | 106-46-7 | 1.2E-03 | 4.7E-06 | 2.06E-05 | 0% | 4.71E-06 | 2.06E-05 |
| Formaldehyde | 50-00-0 | 7.5E-02 | 2.9E-04 | 1.29E-03 | 0% | 2.94E-04 | 1.29E-03 |
| Hexane | 110-54-3 | 1.8E+00 | 7.1E-03 | 3.09E-02 | 0% | 7.06E-03 | 3.09E-02 |
| Naphthalene | 91-20-3 | 6.1E-04 | 2.4E-06 | 1.05E-05 | 0% | 2.39E-06 | 1.05E-05 |
| Toluene | 108-88-3 | 3.4E-03 | 1.3E-05 | 5.84E-05 | 0% | 1.33E-05 | 5.84E-05 |
| POM (w/Naphthalene) | Various | 7.0E-04 | 2.7E-06 | 1.20E-05 | 0% | 2.74E-06 | 1.20E-05 |
| Arsenic | 7440-38-2 | 2.0E-04 | 7.8E-07 | 3.44E-06 | 0% | 7.84E-07 | 3.44E-06 |
| Beryllium | 7440-41-7 | 1.2E-05 | 4.7E-08 | 2.06E-07 | 0% | 4.71E-08 | 2.06E-07 |
| Cadmium | 7440-43-9 | 1.1E-03 | 4.3E-06 | 1.89E-05 | 0% | 4.31E-06 | 1.89E-05 |
| Chromium | 7440-47-3 | 1.4E-03 | 5.5E-06 | 2.40E-05 | 0% | 5.49E-06 | 2.40E-05 |
| Cobalt Compounds | 7440-48-4 | 8.4E-05 | 3.3E-07 | 1.44E-06 | 0% | 3.29E-07 | 1.44E-06 |
| Manganese | 7439-96-5 | 3.8E-04 | 1.5E-06 | 6.53E-06 | 0% | 1.49E-06 | 6.53E-06 |
| Mercury | 7439-97-6 | 2.6E-04 | 1.0E-06 | 4.47E-06 | 0% | 1.02E-06 | 4.47E-06 |
| Nickel | 7440-02-0 | 2.1E-03 | 8.2E-06 | 3.61E-05 | 0% | 8.24E-06 | 3.61E-05 |
| Selenium | 7782-49-2 | 2.4E-05 | 9.4E-08 | 4.12E-07 | 0% | 9.41E-08 | 4.12E-07 |
| Total HAP Emissions | | | 7.40E-03 | 3.24E-02 | | 7.40E-03 | 3.24E-02 |
| Greenhouse Gases: | GWP | (lb/MMBtu) | | | | | |
| $CO_2$ | 1 | 116.89 | 467.6 | 2,048 | 0% | 467.6 | 2,048 |
| $CH_4$ | 25 | 2.20E-03 | 8.82E-03 | 3.86E-02 | 0% | 8.82E-03 | 3.86E-02 |
| $N_2O$ | 298 | 2.20E-04 | 8.82E-04 | 3.86E-03 | 0% | 8.82E-04 | 3.86E-03 |
| Total GHG ($CO_2e$) | | 117.01 | 468.0 | 2,050 | 0% | 468.0 | 2,050 |

Emissions factors from AP-42, Section 1.4 "Natural Gas Combustion"(7/98), Tables 1.4-1, -2, -3 and -4, <100 MMBtu.
1,4-Dichlorobenzene (CAS 106-46-7), an isomer of dichlorobenzene, is assumed equal to dichlorobenzene (CAS 25321-22-6).
Naphthalene is included in the Polycyclic Organic Matter (POM) emissions and is not double-counted in the total HAPs.
Total POM emission factor is equal to the sum of the individual POM compounds, including naphthalene.
GWP and Emission Factors obtained from 40 CFR Part 98. EF's converted from kg to lb.

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Natural Gas Combustion**

## TRIVIAL ACTIVITY

| | | |
|---|---|---|
| Emission Unit | Miscellaneous Natural Gas Combustion Units | |
| Stack/Vent Designation Number: | Vents Externally | |
| Control Equipment: | None | |
| Maximum Rated Capacity: | Radiant Heaters (12) | 0.0018 million Btu/hr Total |
| | Makeup Air Units (3) | 0.006 million Btu/hr Total |
| | Makeup Air Units (2) | 0.0018 million Btu/hr Total |
| | *Total - Radient Heaters & MAU's* | *0.0096 million Btu/hr Total* |
| Fuel Type | Natural Gas | |
| Heat Value: | 1020 Btu/cf | |
| Fuel Consumption Rate: | 9.41E-06 MMscf/hr | |
| Source of Emission Factors: | AP-42 Chapter 1.4 - 0.3-100 MMBtu/hr | |

**Based on the low PTE (CO & Nox < 2 tpy and all other pollutants < 1 tpy each) this activity is considered an insignificant/trivial activity.**

Calculations Summary:

| Pollutant | | Pollutant Emission Factor (lb/MMscf) | Pollutant Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tpy) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 7.60 | 7.15E-05 | 3.13E-04 | 0% | 7.15E-05 | 3.13E-04 |
| $PM_{10}$ | | 7.60 | 7.15E-05 | 3.13E-04 | 0% | 7.15E-05 | 3.13E-04 |
| $PM_{2.5}$ | | 7.60 | 7.15E-05 | 3.13E-04 | 0% | 7.15E-05 | 3.13E-04 |
| $SO_2$ | | 0.60 | 5.65E-06 | 2.47E-05 | 0% | 5.65E-06 | 2.47E-05 |
| $NO_X$ | | 100.00 | 9.41E-04 | 4.12E-03 | 0% | 9.41E-04 | 4.12E-03 |
| VOC | | 5.50 | 5.18E-05 | 2.27E-04 | 0% | 5.18E-05 | 2.27E-04 |
| CO | | 84.00 | 7.91E-04 | 3.46E-03 | 0% | 7.91E-04 | 3.46E-03 |
| Lead | | 5.00E-04 | 4.71E-09 | 2.06E-08 | 0% | 4.71E-09 | 2.06E-08 |
| HAPs: | | | | | | | |
| Benzene | 71-43-2 | 2.1E-03 | 2.0E-08 | 8.66E-08 | 0% | 1.98E-08 | 8.66E-08 |
| 1,4-Dichlorobenzene | 106-46-7 | 1.2E-03 | 1.1E-08 | 4.95E-08 | 0% | 1.13E-08 | 4.95E-08 |
| Formaldehyde | 50-00-0 | 7.5E-02 | 7.1E-07 | 3.09E-06 | 0% | 7.06E-07 | 3.09E-06 |
| Hexane | 110-54-3 | 1.8E+00 | 1.7E-05 | 7.42E-05 | 0% | 1.69E-05 | 7.42E-05 |
| Naphthalene | 91-20-3 | 6.1E-04 | 5.7E-09 | 2.51E-08 | 0% | 5.74E-09 | 2.51E-08 |
| Toluene | 108-88-3 | 3.4E-03 | 3.2E-08 | 1.40E-07 | 0% | 3.20E-08 | 1.40E-07 |
| POM (w/Naphthalene) | Various | 7.0E-04 | 6.6E-09 | 2.88E-08 | 0% | 6.57E-09 | 2.88E-08 |
| Arsenic | 7440-38-2 | 2.0E-04 | 1.9E-09 | 8.24E-09 | 0% | 1.88E-09 | 8.24E-09 |
| Beryllium | 7440-41-7 | 1.2E-05 | 1.1E-10 | 4.95E-10 | 0% | 1.13E-10 | 4.95E-10 |
| Cadmium | 7440-43-9 | 1.1E-03 | 1.0E-08 | 4.53E-08 | 0% | 1.04E-08 | 4.53E-08 |
| Chromium | 7440-47-3 | 1.4E-03 | 1.3E-08 | 5.77E-08 | 0% | 1.32E-08 | 5.77E-08 |
| Cobalt Compounds | 7440-48-4 | 8.4E-05 | 7.9E-10 | 3.46E-09 | 0% | 7.91E-10 | 3.46E-09 |
| Manganese | 7439-96-5 | 3.8E-04 | 3.6E-09 | 1.57E-08 | 0% | 3.58E-09 | 1.57E-08 |
| Mercury | 7439-97-6 | 2.6E-04 | 2.4E-09 | 1.07E-08 | 0% | 2.45E-09 | 1.07E-08 |
| Nickel | 7440-02-0 | 2.1E-03 | 2.0E-08 | 8.66E-08 | 0% | 1.98E-08 | 8.66E-08 |
| Selenium | 7782-49-2 | 2.4E-05 | 2.3E-10 | 9.89E-10 | 0% | 2.26E-10 | 9.89E-10 |
| Total HAP Emissions | | | 1.78E-05 | 7.78E-05 | | 1.78E-05 | 7.78E-05 |
| Greenhouse Gases: | GWP | (lb/MMBtu) | | | | | |
| $CO_2$ | 1 | 116.89 | 1.12 | 4.9 | 0% | 1.12 | 4.9 |
| $CH_4$ | 25 | 2.20E-03 | 2.12E-05 | 9.27E-05 | 0% | 2.12E-05 | 9.27E-05 |
| $N_2O$ | 298 | 2.20E-04 | 2.12E-06 | 9.27E-06 | 0% | 2.12E-06 | 9.27E-06 |
| Total GHG ($CO_2e$) | | 117.01 | 1.12 | 4.9 | 0% | 1.12 | 4.9 |

Emissions factors from AP-42, Section 1.4 "Natural Gas Combustion"(7/98), Tables 1.4-1, -2, -3 and -4, <100 MMBtu.
1,4-Dichlorobenzene (CAS 106-46-7), an isomer of dichlorobenzene, is assumed equal to dichlorobenzene (CAS 25321-22-6).
Naphthalene is included in the Polycyclic Organic Matter (POM) emissions and is not double-counted in the total HAPs
Total POM emission factor is equal to the sum of the individual POM compounds, including naphthalene.
Particulate Matter emission factors created by Roy Huntley EIAG US EPA from data from Ron Myers USEPA using preliminary test data.
GWP and Emission Factors obtained from 40 CFR Part 98. EF's converted from kg to lb.

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Propane Combustion**

**TRIVIAL ACTIVITY**

| | |
|---|---|
| Emission Unit | Miscellaneous Propane Combustion Units |
| Stack/Vent Designation Number: | Vents Externally |
| Control Equipment: | None |
| Maximum Rated Capacity: | Portable Heaters (3, Propane) 0.042 million Btu/hr Total |
| Fuel Type | Propane |
| Heat Value: | 91,500,000 Btu/$10^3$ gallon |
| Fuel Consumption Rate: | 4.59E-04 $10^3$ gallon/hr |

**Based on the low PTE (CO & Nox < 2 tpy and all other pollutants < 1 tpy each) this activity is considered an insignificant/trivial activity.**

Calculations Summary:

| Pollutant | | Pollutant Emission Factor (lb/$10^3$ gallon) | Pollutant Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tpy) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| PM | | 0.7 | 3.21E-04 | 1.41E-03 | 0% | 3.21E-04 | 1.41E-03 |
| $PM_{10}$ | | 0.7 | 3.21E-04 | 1.41E-03 | 0% | 3.21E-04 | 1.41E-03 |
| $PM_{2.5}$ | | 0.7 | 3.21E-04 | 1.41E-03 | 0% | 3.21E-04 | 1.41E-03 |
| $SO_2$ | | 1.5 | 6.89E-04 | 3.02E-03 | 0% | 6.89E-04 | 3.02E-03 |
| $NO_X$ | | 13 | 5.97E-03 | 2.61E-02 | 0% | 5.97E-03 | 2.61E-02 |
| VOC | | 1.0 | 4.59E-04 | 2.01E-03 | 0% | 4.59E-04 | 2.01E-03 |
| CO | | 7.5 | 3.44E-03 | 1.51E-02 | 0% | 3.44E-03 | 1.51E-02 |
| Lead | | -- | -- | -- | | -- | -- |
| HAPs: | | (lbs/MMBtu) | | | | | |
| Benzene | 71-43-2 | 2.06E-06 | 8.6E-08 | 3.79E-07 | 0% | 8.65E-08 | 3.79E-07 |
| Dichlorobenzene | 106-46-7 | 1.18E-06 | 4.9E-08 | 2.16E-07 | 0% | 4.94E-08 | 2.16E-07 |
| Formaldehyde | 50-00-0 | 7.35E-05 | 3.1E-06 | 1.35E-05 | 0% | 3.09E-06 | 1.35E-05 |
| Hexane | 110-54-3 | 1.76E-03 | 7.4E-05 | 3.25E-04 | 0% | 7.41E-05 | 3.25E-04 |
| Naphthalene | 91-20-3 | 5.98E-07 | 2.5E-08 | 1.10E-07 | 0% | 2.51E-08 | 1.10E-07 |
| Toluene | 108-88-3 | 3.33E-06 | 1.4E-07 | 6.13E-07 | 0% | 1.40E-07 | 6.13E-07 |
| POM (w/Naphthalene) | Various | 7.0E-04 | 2.9E-05 | 1.28E-04 | 0% | 2.93E-05 | 1.28E-04 |
| Arsenic | 7440-38-2 | 1.96E-07 | 8.2E-09 | 3.61E-08 | 0% | 8.24E-09 | 3.61E-08 |
| Beryllium | 7440-41-7 | 1.18E-08 | 4.9E-10 | 2.16E-09 | 0% | 4.94E-10 | 2.16E-09 |
| Cadmium | 7440-43-9 | 1.08E-06 | 4.5E-08 | 1.98E-07 | 0% | 4.53E-08 | 1.98E-07 |
| Chromium | 7440-47-3 | 1.37E-06 | 5.8E-08 | 2.52E-07 | 0% | 5.76E-08 | 2.52E-07 |
| Cobalt Compounds | 7440-48-4 | 8.4E-05 | 3.5E-06 | 1.55E-05 | 0% | 3.53E-06 | 1.55E-05 |
| Manganese | 7439-96-5 | 3.73E-07 | 1.6E-08 | 6.85E-08 | 0% | 1.56E-08 | 6.85E-08 |
| Mercury | 7439-97-6 | 2.55E-07 | 1.1E-08 | 4.69E-08 | 0% | 1.07E-08 | 4.69E-08 |
| Nickel | 7440-02-0 | 2.06E-06 | 8.6E-08 | 3.79E-07 | 0% | 8.65E-08 | 3.79E-07 |
| Selenium | 7782-49-2 | 2.35E-08 | 9.9E-10 | 4.33E-09 | 0% | 9.88E-10 | 4.33E-09 |
| Total HAP Emissions | | | 1.11E-04 | 4.84E-04 | | 1.11E-04 | 4.84E-04 |
| Greenhouse Gases: | GWP | (lb/MMBtu) | | | | | |
| $CO_2$ | 1 | 135.49 | 5.69 | 24.9 | 0% | 5.69 | 24.9 |
| $CH_4$ | 25 | 6.61E-03 | 2.78E-04 | 1.22E-03 | 0% | 2.78E-04 | 1.22E-03 |
| $N_2O$ | 298 | 1.32E-03 | 5.56E-05 | 2.43E-04 | 0% | 5.56E-05 | 2.43E-04 |
| Total GHG ($CO_2e$) | | 136.05 | 5.71 | 25.0 | 0% | 5.71 | 25.0 |

Propane sulfur concentration based on Gas Processors Association Engineering Data Book, Commercial Propane = 15 gr/100 scf.
Criteria pollutant emissions factors from AP-42, Section 1.5 "Liquefied Petroleum Gas Combustion"(7/08), Table 1.5-1. Section 1.5 does not provide HAP EFs, therefore HAP EFs from AP-42, Section 1.4 "Natural Gas Combustion"(7/98), Tables 1.4-3 and -4 were used.
1,4-Dichlorobenzene (CAS 106-46-7), an isomer of dichlorobenzene, is assumed equal to dichlorobenzene (CAS 25321-22-6).
Naphthalene is included in the Polycyclic Organic Matter (POM) emissions and is not double-counted in the total HAPs.
Total POM emission factor is equal to the sum of the individual POM compounds, including naphthalene.
GWP and Emission Factors obtained from 40 CFR Part 98. EF's converted from kg to lb.

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Cement Application**

## TRIVIAL ACTIVITY

| | | |
|---|---|---|
| Emission unit: | Cement Application | |
| Stack/Vent Designation Number: | Vents Externally | |
| Control Equipment: | None | |
| Application Method: | Manual application to belts | |
| Amount of Gun Cleaner Used: | 1 gallons/week | 0.006 gallons/hr |
| Maximum Usage Per Year: | 52 gallons/year | |

**Based on the low PTE (VOC & HAP emissions < 1 tpy) this activity is considered an insignificant/trivial activity.**

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) |
|---|---|---|
| Tip Top Heating Solution T4 | 8.35 | 7.09 |

Calculations Summary:

| Pollutant | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|
| VOC | 7.09 | 0.042 | 0.18 | 0% | 0.042 | 0.18 |
| HAPs: | | | | | | |
| No Organic HAPs | | | | | | |

*Because the cement is manually applied, there are no associated particulate emissions, including from lead (inorganic HAP)*

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Adhesive Roll-On Booth**

**TRIVIAL ACTIVITY**

| | |
|---|---|
| Emission Unit | Adhesive Roll-On (Drum Prep - Pully Area) |
| Stack/Vent Designation Number: | Vents Externally |
| Control Equipment: | None |
| Application Method: | Manual Roll-On |
| Chemlok 205 & 234B Use: | 20 parts/week |
| | 0.25 gal/part (based on 1 pint each material per part) |
| | 5 gal/week total Chemlok 205 & 234B |
| | 0.03 gal/hr total Chemlok 205 & 234B (based on 24 hr/day, 7 day/week) |

**Based on the low PTE (VOC & HAP emissions < 1 tpy) this activity is considered an insignificant/trivial activity.**

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) | Percent As Applied | Application Rate (gal/hr) |
|---|---|---|---|---|
| Chemlok 205 Adhesive and/or Primer | 7.84 | 5.92 | 50% | 0.015 |
| Chemlok 234B Adhesive | 9.00 | 6.69 | 50% | 0.015 |

*Note - Chemlok 205 and 234B materials are applied in equal amounts to each part (1/1 ratio). T*

Calculations Summary - Chemlok 205 Primer:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lb/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 5.92 | 0.09 | 0.39 | 0% | 0.09 | 0.39 |
| HAPs: | | | | | | | |
| Ethylbenzene | 100-41-4 | 3.92E-01 | 5.84E-03 | 2.56E-02 | 0% | 5.84E-03 | 2.56E-02 |
| Methyl Isobutyl Ketone | 108-10-1 | 4.71E+00 | 7.00E-02 | 3.07E-01 | 0% | 7.00E-02 | 3.07E-01 |
| Xylenes | 1330-20-7 | 1.18E+00 | 1.75E-02 | 7.67E-02 | 0% | 1.75E-02 | 7.67E-02 |
| Total HAP Emissions | | | 9.34E-02 | 4.09E-01 | | 9.34E-02 | 4.09E-01 |

*Note - because the adhesive is manually applied, there are no associated particulate emissions.*

Calculations Summary - Chemlok 234B:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lb/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 6.69 | 0.10 | 0.44 | 0% | 0.10 | 0.44 |
| HAPs: | | | | | | | |
| Trichloroethylene | 79-01-6 | 2.70E+00 | 4.02E-02 | 1.76E-01 | 0% | 4.02E-02 | 1.76E-01 |
| Ethylbenzene | 100-41-4 | 9.00E-01 | 1.34E-02 | 5.87E-02 | 0% | 1.34E-02 | 5.87E-02 |
| 1,2-Epoxybutane | 106-88-7 | 9.00E-02 | 1.34E-03 | 5.87E-03 | 0% | 1.34E-03 | 5.87E-03 |
| Xylenes | 1330-20-7 | 3.60E+00 | 5.36E-02 | 2.35E-01 | 0% | 5.36E-02 | 2.35E-01 |
| Total HAP Emissions | | | 1.08E-01 | 4.75E-01 | | 1.08E-01 | 4.75E-01 |

*Note - because the adhesive is manually applied, there are no associated particulate emissions.*

**Emissions Summary - Total Adhesive Roll-On Emissions**

| Pollutant | | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|
| VOC | | 0.19 | 0.82 |
| HAPs: | | | |
| Trichloroethylene | 79-01-6 | 4.02E-02 | 1.76E-01 |
| Ethylbenzene | 100-41-4 | 1.92E-02 | 8.42E-02 |
| 1,2-Epoxybutane | 106-88-7 | 1.34E-03 | 5.87E-03 |
| Methyl Isobutyl Ketone | 108-10-1 | 7.00E-02 | 3.07E-01 |
| Xylenes | 1330-20-7 | 7.11E-02 | 3.11E-01 |
| Total HAP Emissions | | 2.02E-01 | 8.84E-01 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Assembly Vulcanizing Belt Cleaner**

## TRIVIAL ACTIVITY

| | | |
|---|---|---|
| Emission Unit | Assembly Vulcanizing Belt Cleaner | |
| Stack/Vent Designation Number: | Vents Externally | |
| Control Equipment: | None | |
| Application Method: | Manual wipe to parts | |
| Cleaning Solution Use: | 0.25 gallons/week | 0.0015 gallons/hr |
| Maximum Usage Per Year: | 13 gallons/year | |

**Based on the low PTE (VOC & HAP emissions < 1 tpy) this activity is considered an insignificant/trivial activity.**

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) |
|---|---|---|
| SS Solution, Cleaning, REMA | 6.90 | 6.90 |

Calculations Summary - Cleaner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lb/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 6.90 | 1.03E-02 | 4.50E-02 | 0% | 1.03E-02 | 4.50E-02 |
| HAPs: | | | | | | | |
| Xylenes | 1330-20-7 | 6.90E-02 | 1.03E-04 | 4.50E-04 | 0% | 1.03E-04 | 4.50E-04 |
| Total HAP Emissions | | | 1.03E-04 | 4.50E-04 | | 1.03E-04 | 4.50E-04 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Crane Chain Cleaner**

**TRIVIAL ACTIVITY**

| | | |
|---|---|---|
| Emission Unit | Crane Chain Cleaner | |
| Stack/Vent Designation Number: | Vents Internally | |
| Control Equipment: | None | |
| Application Method: | Soaking | |
| Cleaning Solution Use: | 2.00 gallons/week | 0.0119 gallons/hr |
| Maximum Usage Per Year: | 104 gallons/year | |

**Based on the low PTE (VOC & HAP emissions < 1 tpy) this activity is considered an insignificant/trivial activity.**

Material Data Summary:

| Material | Density (lb/gal) | VOC Content (lb/gal) |
|---|---|---|
| N-9000 | 6.99 | 5.03 |

Calculations Summary - Cleaner:

| Pollutant | | Maximum Pollutant Content (lbs/gal) | Maximum Uncontrolled Emissions (lb/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Maximum Controlled Emissions (lbs/hr) | Maximum Controlled Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|
| VOC | | 5.03 | 0.060 | 0.26 | 0% | 0.060 | 0.26 |
| HAPs: | | | | | | | |
| Benzene | 71-43-2 | 2.10E-02 | 2.50E-04 | 1.09E-03 | 0% | 2.50E-04 | 1.09E-03 |
| Toluene | 108-88-3 | 4.34E+00 | 5.17E-02 | 2.26E-01 | 0% | 5.17E-02 | 2.26E-01 |
| Total HAP Emissions | | | 5.19E-02 | 2.27E-01 | | 5.19E-02 | 2.27E-01 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Plasma Cutter**

**TRIVIAL ACTIVITY**

Emission unit: Plasma Cutter
Stack/Vent designation: Vents Externally
Pollution control equipment identification: Fabric Filter
Notes: Plasma cutter and table are automated for cutting steel.

**Based on the low PTE (PM emissions < 1 tpy) this activity is considered an trivial activity.**

| Pollutant | Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Controlled Emission Rate (lbs/hr) | Controlled Emission Rate (tons/yr) |
|---|---|---|---|---|---|
| PM | 0.215 | 0.94 | 59% | 0.088 | 0.39 |
| $PM_{10}$ | 0.215 | 0.94 | 59% | 0.088 | 0.39 |
| $PM_{2.5}$ | 0.215 | 0.94 | 59% | 0.088 | 0.39 |

Emission rate based on metal laser cutting information below *(Material Cut * Material Density * 60 min/hr * Emissions from Fumes * Safety Factor).*

Pollution Control Efficiency based on 59% overall control efficiency for a fabric filter, not certified hood. Obtained from the MN Control Equipment Rule (MN Rule 7007.0070).

Metal Laser Cutting Information:

| Material | Material Thickness (in) | Beam Width (in) | Cut Rate (in/min) | Material Cut ($in^3$/min) | Maximum Material Density ($lbs/in^3$) | Emissions from Fumes (%) | Safety Factor (%) |
|---|---|---|---|---|---|---|---|
| Mild & Stainless Steel | 0.145 | 0.01 | 100 | 0.145 | 0.282 | 7% | |
| Worst Case: | | | | 0.145 | 0.282 | 7% | 1.25 |

Material thickness ranges from 0.04 to 0.5 inches; an average value was used. Beam width ranges from 0.005 to 0.015 inches, and material cut rate ranges from 80 to 120 inches per minute. Based on facility operations, the beam width typically decreases with increased cut rate or increases with decreased cut rate, and depends on the type of cut being made (straight vs. curved). Therefore, average values were used.

Emission of fumes expressed as a percent of the total amount of material removed from cutting, worst-case scenario consisting of dry cutting, stainless steel, 8mm thick, with a cutting speed of 3.5 meters per minute; from "Emission of Fume, Nitrogen Oxides and Noice in Plasma Cutting of Stainless and Mild Steel," Bromsen B. et al, Swedish Institute of Production Engineering Research, Goteborg, Sweden, 1994.

A safety factor of 25% is assumed to account for variability in the process.

| **Inorganic HAPs** | | **Mild Steel** | **Stainless Steel** | | |
|---|---|---|---|---|---|
| **Pollutant** | **CAS** | **% by Wt** | **% by Wt** | **Worst Case % Wt** | **Controlled Emission Rate (tpy)** |
| Chromium (Cr) | 7440-47-3 | <0.4 - 10% | 10-30% | 30% | 1.16E-01 |
| Lead (Pb) | 7439-92-1 | <0.15 - 0.35% | <0.1% | 0.35% | 1.35E-03 |
| Manganese (Mn) | 7439-96-5 | <0.04 - 0.7% | 0-10% | 10% | 3.86E-02 |
| Nickel (Ni) | 7440-02-2 | <0.1 - 10% | 0-27% | 27% | 1.04E-01 |

**Superior Industries Southwest Division - Prescott Valley, AZ Facility**
**Total Facility Potential to Emit Calculations**
**Plasma Cutter**

## TRIVIAL ACTIVITY

Emission unit: Plasma Cutter - Messer
Stack/Vent designation: Vents Externally
Pollution control equipment identification: Fabric Filter
Notes: Plasma cutter and table are automated for cutting steel.

**Based on the low PTE (PM emissions < 1 tpy) this activity is considered an trivial activity.**

| Pollutant | Emission Rate (lbs/hr) | Maximum Uncontrolled Emissions (tons/yr) | Pollution Control Efficiency (%) | Controlled Emission Rate (lbs/hr) | Controlled Emission Rate (tons/yr) |
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*(BACK COVER – INTENTIONALLY LEFT BLANK)*