San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

February 11, 2026

Greg Yates
Weldway Steel Fabrication
521 Hi Tech Parkway
Oakdale, CA 95361

RE: Notice of Final Action - Authority to Construct
Facility Number: N-10486
Project Number: N-1251301

Dear Mr. Yates:

The Air Pollution Control Officer has issued the Authority to Construct (ATC) permit to Weldway Steel Fabrication for the installation of a metal parts and products coating operation consisting of a paint spray booth with dry exhaust filters, at 1230 Brennan Road, Escalon, CA. Enclosed are the ATC permit and a copy of the notice of final action that has been posted on the District's website (https://valleyair.org/).

Notice of the District's preliminary decision to issue the ATC permit was posted on October 7, 2025. The District's analysis of the proposal was also sent to CARB on October 7, 2025. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in minor changes to the project evaluation and ATC conditions. Please see public comments and District responses in Appendix G of the attached revised project evaluation. These changes did not impact the project approval nor did they trigger additional public notification requirements.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce at (209) 557-6400.

Sincerely,

Brian Clements
Director of Permit Services

BC:tn

Enclosures

cc: Courtney Graham, CARB (w/ enclosure) via email

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Facility # N-10486
WELDWAY STEEL FABRICATION
521 HI TECH PARKWAY
OAKDALE, CA 95361

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

1. **Pay Invoice**: Please pay enclosed invoice before due date.
2. **Fully Understand ATC**: Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
3. **Follow ATC**: You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
4. **Notify District**: You must notify the District's Compliance Department, at the telephone numbers below, upon start-up and/or operation under the ATC. Please record the date construction or modification commenced and the date the equipment began operation under the ATC. A startup inspection may be required prior to receiving your Permit to Operate.
5. **Source Test**: Schedule and perform any required source testing. See https://ww2.valleyair.org/compliance/source-testing for source testing resources.
6. **Maintain Records**: Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for at least 5 years. Sample record keeping forms can be found at https://ww2.valleyair.org/compliance/recordkeeping-forms.

By operating in compliance, you are doing your part to improve air quality for all Valley residents.

For assistance, please contact District Compliance staff at any of the telephone numbers listed below.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-10486-1-0 **ISSUANCE DATE:** 2/11/2026

LEGAL OWNER OR OPERATOR: WELDWAY STEEL FABRICATION
MAILING ADDRESS: 521 HI TECH PARKWAY
OAKDALE, CA 95361

LOCATION: 1230 BRENNAN ROAD
ESCALON, CA 95320

EQUIPMENT DESCRIPTION:
METAL PARTS AND PRODUCTS COATING OPERATION CONSISTING OF A PAINT SPRAY BOOTH WITH DRY EXHAUST FILTERS

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
6. All coating shall be conducted in booth with filters in place, fan(s) operating, and doors closed. [District Rule 2201]
7. Booth shall be equipped with dry filters achieving a PM10 control efficiency of at least 98% by weight. [District Rule 2201]
8. Only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment, or other application equipment pre-approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rules 2201 and 4603]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-10486-1-0 : 2/11/2026 11:39:10 AM -- NGUYENT : Joint Inspection NOT Required

9. Permittee shall demonstrate that HVLP guns manufactured prior to 1/1/96 operate between 0.1 and 10 psig of air atomizing pressure. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring the air atomizing pressure dynamically at the center of the air cap and at the air horns. [District Rule 4603]
10. Particulate matter (PM10) emission rate shall not exceed either of the following limits: 9.1 lb/day or 112 lb/year. [District Rule 2201]
11. Volatile organic compound (VOC) emission rate shall not exceed either of the following limits: 217.5 lb/day or 2,688 lb/year. [District Rule 2201]
12. Epoxy and hardener coatings shall only be applied with a roller applicator. [District Rule 2201]
13. PM10 emissions from the use of primer shall be calculated as follows: PM10 emissions = Solids content (lb/gallon) x usage (gallon/day) x (0.005). Total PM10 emissions is the sum of PM10 emissions from all primer coating materials used. [District Rule 2201]
14. VOC emissions from the use of primer, hardener, and epoxy shall be calculated as follows: VOC emissions = VOC content (lb/gallon) as applied x usage (gallon/day). Total VOC emissions is the sum of VOC emissions from all coating materials used. [District Rule 2201]
15. Emissions of parachlorobenzotrifluoride (PCBTF, CAS# 98-56-6) from this permit unit shall not exceed 3,246 lb-PCBTF/year. PCBTF emissions from this equipment shall be calculated as the sum of PCBTF emissions from each coating product used (including coatings, thinners, activators, etc.). PCBTF emissions from use of each coating product shall be calculated by the following equation: PCBTF emission (lb/year) = weight percent PCBTF in coating product (%) x density of coating product (lb/gal) x usage of coating product (gal/year). Records of PCBTF emissions shall be updated on a monthly basis, and totaled on a calendar year basis. [District Rule 4102]
16. No coatings, solvents, or additives containing any of the following compounds shall be used: lead compounds, hexavalent chromium, cadmium, manganese, and/or nickel compounds. [District Rule 4102]
17. VOC content of coatings as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed 340 g/l (2.8 lb/gal). [District Rules 2201, 4102, and 4603]
18. VOC content of solvents used for all solvent cleaning operations shall not exceed 25 g/l (0.21 lb/gal). [District Rule 4603]
19. The operator shall comply with the following work practice standards: 1) store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers, keeping the containers closed at all times except when specifically in use; 2) close mixing vessels that contain VOC coatings and other materials, except when specifically in use; 3) minimize spills of any VOC-containing materials and clean up spills immediately; and 4) convey VOC-containing materials in closed containers or pipes. [District Rule 4603]
20. An operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, etc., coatings, adhesives, catalysts, and thinners in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4603]
21. Each container or accompanying data sheet of any coating shall display: 1) a statement of the manufacturer's recommendation regarding thinning of the coating excluding the thinning of coatings with water, and 2) the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt compounds). VOC content displayed may be calculated using product formulation data, or may be determined using approved test methods. [District Rule 4603]
22. All solvents shall indicate on the solvent container, or on a separate product data sheet or material safety data sheet, the name of the solvent, manufacturer's name, the VOC content (in gm/liter or lb/gallon), and density of the solvent, as supplied. [District Rule 4603]
23. Permittee shall maintain daily records of quantity (gallons) and solids content of each coating applied, and calculated daily and annual PM10 emissions. Permittee shall also maintain daily records of VOC content as applied (lb/gal) of each coating used, quantity (gallons) of each coating used, and calculated daily and annual VOC emissions. [District Rules 2201 and 4603]

CONDITIONS CONTINUE ON NEXT PAGE

24. The permittee shall maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information, as applicable: mix ratio of components used, VOC content and specific chemical constituents of coatings as applied, and VOC content and specific chemical constituents of solvents used for surface preparation and cleanup. [District Rules 2201 and 4603]
25. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201 and 4603]

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Metal Parts and Products Coating Operation

Facility Name:	Weldway Steel Fabrication	Date:	October 7, 2025
		Revised:	February 5, 2026
Mailing Address:	521 Hi Tech Parkway Oakdale, CA 95361	Engineer:	Tan Nguyen
		Lead Engineer:	Dustin Brown
Facility Contact Person:	Greg Yates		
Contact Telephone:	(209) 847-8083		
Contact E-Mail:	jfondse@weldwayinc.com		
Application #:	N-10486-1-0		
Project #:	N-1251301		
Date Deemed Complete:	April 17, 2025		

I. Proposal

Weldway Steel Fabrication manufactures stand-alone structural steel fabrication for design-specific multi-story buildings, retrofits, and miscellaneous metal applications. Weldway Steel has requested an Authority to Construct (ATC) permit for an installation of a metal parts and products coating operation using an HVLP spray and a roller applicator equipment in an enclosed paint spray booth with dry exhaust filters. The draft ATC is included in Appendix A.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/20/23)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/20/24)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4603	Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts (9/17/19)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 1230 Brennan Road in Escalon, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Weldway Steel Fabrication manufactures stand-alone structural steel fabrication for design-specific multi-story buildings, retrofits, and miscellaneous metal applications. The paint spray booth will be used solely for metal parts and products coating. The paint spray operation will only occur in one stage: primer is applied directly onto the cleaned metal parts with Titan 840 HVLP spray gun(s). Weldway Steel is also proposing to Titan Powercoat 630 and Graco paint pumps as a part of this coating operation. Paint pumps are devices that pressurize and move paint from a container through a hose to a spray gun, where it is atomized and applied to a surface without the need of compressed air. The Titan 840 HVLP applicator is an HVLP spray gun that is use to apply the coating of paint and/or primer to the finished product. The coated parts are allowed time to air-dry before they are removed from the booth.

Select components of the steel structures that this facility manufactures may also go through a galvanization process, which is performed at a 3rd party vendor location. For the components that require galvanization, an application of a mixture of epoxy and hardener coating is applied to the components to serve as a protective layer or barrier and is part of the operation coating process. The epoxy and hardener is mixed manually at a ratio 1 to 1, and the application is rolled on by a paint roller.

V. Equipment Listing

N-10486-1-0: METAL PARTS AND PRODUCTS COATING OPERATION CONSISTING OF A PAINT SPRAY BOOTH WITH DRY EXHAUST FILTERS

Paint Spray Booth

Manufacturer	: Titan
Model	: N/A
Dimensions	: 140’ L x 75’ W x 12’ H
Filtration Method	: Dry Filters
Exhaust Fan Rating	: 1.65 hp electric
Exhaust Flow Rate	: 16,000 cfm (two 8,000 cfm fans, per manufacturer)

Application Equipment:

Manufacturer	: Titan
Model	: 840 HVLP
Compressor Rating	: 25 hp electric
Method	: HVLP
Manufacturer	: Titan Powercoat and Graco
Model	: 630 Airless and 207352-223-843
Method	: Paint pump

VI. Emission Control Technology Evaluation

Only PM_{10} and VOC are emitted from the metal parts and products coating operation. PM_{10} and VOC emissions from the coating operation will be controlled by the use of High Volume, Low Pressure (HVLP) spray equipment and the applicant has proposed to use a paint spray booth with an air-dried system. The paint spray booth with a dry filter system will control PM_{10} emissions by filtering the air from inside the paint booth before it is exhausted to the atmosphere. The HVLP spray equipment will control PM_{10} and VOC emissions by having more paint transferred to the desired surfaces than traditional painting equipment. In addition, the applicant will be required to use coatings and solvents that comply with the VOC content limits of District Rule 4603.

VII. General Calculations

A. Assumptions

- PM_{10} and VOC are the only pollutants emitted from this operation.
- Epoxy and hardener coating is applied by a roller applicator, which has a 100% transfer efficiency (TE). Therefore, no PM10 emissions will be emitted from the application of these products.
- Except for the epoxy and hardener products, all other coatings and primers will be applied utilizing HVLP applicators.
- HVLP gun transfer efficiency (TE) is 75% (per STAPPA/ALAPCO Vol. 2, pg. 14-7, 5/30/91).
- Dry exhaust filter removal efficiency (RE) is 98% (manufacturer guarantee based on test results, see Appendix F).
- For the coating operation, VOC contents were taken from Safety Data Sheet (SDS), and coating usage for each proposed coating listed in the table below (per applicant).
- For the coating operation, solid contents were taken from Safety Data Sheet (SDS) and Technical Data Sheet (TDS), and coating usage for each proposed coating listed in the table below (per applicant).
- To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions.
- Other assumptions will be stated as they are made

B. Emission Factors

- VOC EF for all primers is based on the VOC content referenced in the Safety Data Sheet (SDS) provided by the applicant.
- VOC EF for hardener (worst case) is 1.63 lb./gal, based on the VOC content referenced in the Safety Data Sheet (SDS) provided by the applicant.
- VOC EF for epoxy (worst case) is 2.11 lb/gal, based on the VOC content referenced in the Safety Data Sheet (SDS) provided by the applicant.
- PM10 EF for primers are based on the solids content referenced in the Safety Data Sheets (SDS) for each material provided by the applicant.

The PM10 EF for coatings is based on the solids content of each proposed coating, calculated using the following equations:

Solids Content = Product weight (lb/gal) x Solids by Weight (%)

Solids Content Calculation			
Coating Name	**Product Density (lb/gal)**	**Solids by Weight (%)**	**Solids Content (lb/gal)**
Epoxy-Macropoxy 646 B58W610	12.19	71	**8.65**
Hardener-Macropoxy 646 B58V600	13.46	87.8	**11.82**
Primer-TNEMEC Series 115	11.60	71.6	**8.31**
Primer-TNEMEC 94-H2O	24.92	83	**20.68**
Primer-Sherwin Williams B50AS200	14.29	83.5	**11.93**

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

The potential to emit for the coating operation is calculated as shown below.

PE2Coating $_{VOC}$ = Coating Usage x VOC content of Coating (lb-VOC/gal)

PE2Coating $_{PM10}$ = Coating Usage x Solids Content (lb/gal) x (1 – HVLP Transfer Efficiency) x (1- Dry Filter Control Efficiency)

= Coating Usage x Solids Content (lb/gal) x (1 – 0.75) x (1 – 0.98)

PE2 $_{Coating}$								
Coating Product	VOC Content (lb/gal, as applied)	Solids Content (lb/gal)	Usage (gal/day)	Usage (gal/year)	Daily PE		Annual PE	
					(lb-VOC)	(lb-PM_{10})	(lb-VOC)	(lb-PM_{10})
Epoxy-Macropoxy 646 B58W610	2.11	8.65	8	99	16.9	0.0[1]	209	0[1]
Hardener-Macropoxy 646 B58V600	1.63	11.82	8	99	13.0	0.0[1]	161	0[1]
Primer-TNEMEC Series 115	1.09	8.31	34	420	37.1	1.4	458	17
Primer-TNEMEC Series 115	1.09	8.31	35	433	38.2	1.5	472	18
Primer-TNEMEC 94-H2O	0.74	20.68	33	408	24.4	3.4	302	42
Primer-Sherwin Williams B50AS200	1.87	11.93	47	581	87.9	2.8	1,086	35
Acetone	0[2]	0	83	1,000	0.0	0.0	0	0

PE2 Coating								
Coating Product	VOC Content (lb/gal, as applied)	Solids Content (lb/gal)	Usage (gal/day)	Usage (gal/year)	Daily PE		Annual PE	
					(lb-VOC)	(lb-PM_{10})	(lb-VOC)	(lb-PM_{10})
				Total PE2:	**217.5**	**9.1**	**2,688**	**112**

[1] The epoxy and hardener coating is applied with a roller applicator which applies and transfers 100% of the coating to the metal parts. These materials are not sprayed or atomized in to the air. Therefore, there are no expected PM10 emissions from the application of these coatings.
[2] In accordance with District Rule 1020, Section 3.54, acetone is not considered a VOC. Therefore, the VOC content will be set equal to zero for the purposes of the PE calculations for this operation.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site, including all ERCs held as certificates and all emission reduction credits sold or transferred.

This facility currently has no valid PTOs, five valid ATCs and no ERCs. The SSPE values summarized in the table below for valid ATCs '-2-0 through '-6-0 were taken from project N-1252436.

SSPE1 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
N-10486-2-0	0	0	5	0	0
N-10486-3-0	0	0	9	0	0
N-10486-4-0	0	0	4	0	0
N-10486-5-0	0	0	10	0	0
N-10486-6-0	0	0	0	0	0
SSPE1	**0**	**0**	**28**	**0**	**0**

4. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source, except for emissions units proposed to be shut down as part of a Stationary Source Project, and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site, including all ERCs held as certificates and all emission reduction credits sold or transferred.

For this project, the change in emissions for the facility is due to the installation of the new metal parts and products coating operation, the table is summarized and shown below:

SSPE2 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
N-10846-1-0 (new)	0	0	112	0	2,688
N-10486-2-0	0	0	5	0	0
N-10486-3-0	0	0	9	0	0
N-10486-4-0	0	0	4	0	0
N-10486-5-0	0	0	10	0	0
N-10486-6-0	0	0	0	0	0
SSPE2	**0**	**0**	**140**	**0**	**2,688**

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status, the following shall NOT be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months), pursuant to the Clean Air Act, Title 3, Section 302, US Codes 7602(j) and (z)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5***	**CO**	**VOC**
SSPE1	0	0	28	28	0	0
SSPE2	0	0	140	140	0	2,688
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

*Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 (Prevention of Significant Deterioration) Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore, the PSD Major Source threshold is 250 tons per year (tpy) for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM*	PM10
Estimated Facility PE before Project Increase	0.0	0.0	0.0	0.0	0.0	0.0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

*PM assumed to be equal to PM10.

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the Quarterly Net Emissions Change (QNEC), and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,
BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.
As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.
Therefore BE = PE1.

Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

7. Senate Bill 288 Major Modification

A Senate Bill (SB) 288 Major Modification is a federal major modification under 40 CFR 51.165 as it existed on December 19, 2002. 40 CFR Part 51.165 (12/19/02) defines a Major Modification as any physical change in or change in the method of operation of *an existing major stationary source* that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.

Per section VII.C.5 above, this facility is not a Major Source for any of the pollutants addressed in this project. Thus, this project does not constitute an SB 288 major modification and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act. The significant net emission increase threshold for each criteria pollutant is included in Rule 2201.

Per section VII.C.5 above, this facility is not a Major Source for any pollutants addressed in this project. Thus, this project does not constitute a Federal Major Modification and no further discussion is required.

New Major Source

Per section VII.C.5 above, this facility is not becoming a Major Source as a result of this project, therefore, this facility is not a New Major Source pursuant to Section 3.30 of District Rule 2201.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- PM / PM10
- VOC

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). The PSD Major Source threshold is 250 tons per year (tpy) for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM10
Total PE from New and Modified Units	0.0	1.3	0.0	0.0	0.1	0.1
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix D.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding 2.0 pounds per day, or the relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding 2.0 pounds per day,
b. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds per day, and/or
c. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New or relocated emissions units – PE > 2.0 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install a metal parts and products coating operation with a PE greater than 2.0 lb/day for PM_{10} and VOC. BACT is triggered for PM_{10} and VOC since the PEs are greater than 2.0 lb/day.

b. Modification of emissions units – AIPE > 2.0 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore, BACT is not triggered for the modification of an emissions unit.

c. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore, BACT is not triggered for any pollutant for an SB 288 or Federal Major Modification.

2. BACT Guideline

There is currently no active BACT guideline in the District's BACT Clearinghouse that are applicable to metal parts and products operations. Therefore, a project-specific BACT analysis will be performed for the proposed metal parts and product coating operation (see Appendix B).

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached top down BACT Analysis, which appears in Appendix B of this report, BACT is satisfied with:

VOC: Coatings, solvents, and cleaning materials complaint with District Rule 4612 and HVLP application method (transfer efficiency at least 75%) .

PM_{10}: HVLP application method (transfer efficiency at least 75%) and spray booth with exhaust filters (98% control).

The applicant has proposed an HVLP application method (transfer efficiency at least 75%) and spray booth with exhaust filters (98% control) and coatings, solvents, cleaning materials complaint with District Rule 4612 Therefore, BACT is satisfied for VOC.

The following conditions will be listed on the ATC to ensure compliance with the BACT requirements:

- Only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment, or other application equipment pre-approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rules 2201 and 4603]

- {edit 4441} Booth shall be equipped with dry filters achieving a PM10 control efficiency of at least 98% by weight. [District Rule 2201]

- All coating shall be conducted in booth with filters in place, fan(s) operating, and doors closed. [District Rule 2201]

B. Offsets

1. District Emission Offset Requirements

a. District Offset Applicability

Pursuant to District Rule 2201, Section 4.5, District offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds the offset threshold levels in Table 4-1 of District Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	0	0	140	0	2,688
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	No

b. District Offset Quantity (DOQ) Required

As shown above, the SSPE2 is not greater than the offset thresholds for all pollutants, therefore District offsets are not triggered. In conclusion, offsets will not be required for this project and no further discussion is required.

2. Federal Emission Offset Requirements

a. Federal Offset Applicability

Pursuant to District Rule 2201, Section 4.8, federal offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the project is a New Major Source or a Federal Major Modification.

As demonstrated in section VII.C.8 above, this project is not a New Major Source or a Federal Major Modification for any pollutant addressed in this project. Thus, federal offsets are not triggered for this project.

b. Federal Offset Quantity (FOQ) Required

As discussed above, this project does not trigger Federal Major Modification or New Major Source requirements; therefore, in conclusion, federal offsets will not be required for this project and no further discussion is required.

3. Federal Offset Equivalency Demonstration

Section 7.0 of District Rule 2201 provides the requirements for the District to demonstrate on an individual ATC issuance basis that the number of creditable emission reductions collected by the District equals or exceeds the amount of creditable emission reductions that would otherwise be required as offsets under a federal non-attainment NSR program meeting the applicable requirements of 40 CFR 51.165 and the CAA. As demonstrated above, this project does not require federal offsets; therefore, a federal offset equivalency demonstration is not required for this project and no further discussion is required.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed,
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant,
e. Any project at a minor source which results in an SSPE exceeding 80% of the major source threshold for any pollutant, and/or
f. Any project which results in a Title V significant permit modification.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

As shown in Section VII.C.5 above, the SSPE2 of this new facility is not greater than the Major Source threshold for any pollutant. Therefore, this new facility is not a New Major Source and public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purpose is required.

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	**PE2 (lb/day)**	**Public Notice Threshold**	**Public Notice Triggered?**
NOx	0	100 lb/day	No
SOx	0	100 lb/day	No
PM10	9.1	100 lb/day	No
CO	0	100 lb/day	No
VOC	217.5	100 lb/day	Yes

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	0	0	28	0	0
SSPE2	0	0	140	0	2,688
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, there were no thresholds surpassed with this project; therefore public noticing is not required for this purpose.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1 and negative values are equated to zero. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	0	0	140	0	2,688
SSPE1	0	0	28	0	0
SSIPE	0	0	112	0	2,688
SSIPE Public Notice Threshold	20,000	20,000	20,000	20,000	20,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Minor Sources with SSPE Exceeding 80% of Major Source Threshold

Public notification is required for any project for new and/or modified stationary sources at minor source facilities that results in a SSPE exceeding 80% of the major source threshold.

As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant. The following table compares the SSPE1 with the SSPE2 in order to determine if 80% of any major source thresholds have been surpassed with this project.

80% of Major Source Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	0	0	28	0	0
SSPE2	0	0	140	0	2,688
80% of Major Source Threshold	16,000	112,000	112,000	160,000	16,000
Public Notice Required?	No	No	No	No	No

As demonstrated above, the SSPE2 did not surpass 80% of the major source threshold for any pollutant; therefore, public noticing for this purpose is not required.

f. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant modification, and therefore public noticing is not required a Title V significant modification.

2. Public Notice Action

As discussed above, public noticing is required for this project for VOC emissions in excess of 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

- Particulate matter (PM10) emission rate shall not exceed either of the following limits: 9.1 lb/day or 112 lb/year. [District Rule 2201]

- Volatile organic compound (VOC) emission rate shall not exceed either of the following limits: 217.5 lb/day or 2,688 lb/year. [District Rule 2201]

- Epoxy and hardener coatings shall only be applied with a roller applicator. [District Rule 2201]

- PM10 emissions from the use of primer shall be calculated as follows: PM10 emissions = Solids content (lb/gallon) x usage (gallon/day) x (0.005). Total PM10 emissions is the sum of PM10 emissions from all primer coating materials used. [District Rule 2201]
- VOC emissions from the use of primer, hardener, and epoxy shall be calculated as follows: VOC emissions = VOC content (lb/gallon) as applied x usage (gallon/day). Total VOC emissions is the sum of VOC emissions from all coating materials used. [District Rule 2201]

- VOC content of coating as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed 340 g/l (2.8 lb/gal). [District Rules 2201 and 4603]

In addition, the following conditions will be placed on the permit to ensure that the permit unit operates in compliance with the applicable requirements:

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]

- {edit 1535} All coating shall be conducted in booth with filters in place, fan(s) operating, and doors closed. [District Rule 2201]

- {edit 4441} Booth shall be equipped with dry filters achieving a PM10 control efficiency of at least 98% by weight. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

- Permittee shall maintain daily records of quantity (gallons) and solids content of each coating applied, and calculated daily and annual PM10 emissions. Permittee shall also maintain daily records of VOC content as applied (lb/gal) of each coating used, quantity (gallons) of each coating used, and calculated daily and annual VOC emissions. [District Rules 2201 and 4603]

- The permittee shall maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information, as applicable: mix ratio of components used, VOC content and specific chemical constituents of coatings as applied, and VOC content and specific chemical constituents of solvents used for surface preparation and cleanup. [District Rules 2201 and 4603]

- {modified 1807} Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201 and 4603]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Section 4.15 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix C of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NOx, CO, and SOx. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NOx, CO, or SOx.

The proposed location is in a non-attainment area for the state's PM10 as well as federal and state PM2.5 thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM10 and PM2.5.

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass		Pass		
NO_x	Pass				Pass
SO_x	Pass			Pass	Pass
PM10				Pass	Pass
PM2.5				Pass	Pass

Notes:
1. Results were taken from the attached AAQA Report.
2. The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted bel
3. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 5 $\mu g/m^3$ for the 24-hour average concentration and 1 $\mu g/m^3$ for the annual concentration.
4. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 1.2 $\mu g/m^3$ for the 24-hour average concentration and 0.13 $\mu g/m^3$ for the annual concentration.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to metal parts and products coating operations.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of Subpart HHHHHH, *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* are applicable to the proposed coating operation and limit the emissions of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni) and cadmium (Cd). However, the District has not been delegated the authority to implement Area Source requirements from NESHAP regulations for non-Major Sources.

In addition, the coatings proposed to be utilized as a part of this operation do not contain any of the target HAPs addressed within this subpart. Therefore, the provisions of this subpart are not applicable to this coating operation. The following condition will be included on the ATC to ensure compliance:

- {edit 4929} No coatings, solvents, or additives containing any of the following compounds shall be used: lead compounds, hexavalent chromium, cadmium, manganese, and/or nickel compounds. [District Rule 4102]

Therefore, compliance with the provisions of Subpart HHHHHH, will not be demonstrated for the equipment in this project.

The requirements of Subpart MMMM, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products* are applicable to facilities that use 250 gallons per year, or more, of coatings in the source category defined in section 63.3981 of this regulation and that are a Major HAP source (as defined in 40 CFR 63.2 – Definitions).

A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

The facility is not a Major HAP Source; therefore, the requirements of this regulation do not apply.

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. As long as the equipment is properly maintained and operated, compliance with the visible emissions limit is expected. The following condition will be included on the ATC:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of this operation, provided the equipment is well maintained. Therefore, compliance with this rule is expected. The following condition will be included on the ATC:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

- {edit 4929} No coatings, solvents, or additives containing any of the following compounds shall be used: lead compounds, hexavalent chromium, cadmium, manganese, and/or nickel compounds. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

According to the Technical Services Memo for this project, the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below.

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1	217.43	0.24	0.02	8.99E-06	Yes	Yes
Project Totals	217.43	0.24	0.02	8.99E-06		
Facility Totals	> 1	0.24	0.02	8.99E-06		

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As shown above, T-BACT is required for this project because the HRA indicates that the worst-case cancer risk does exceed one in one million.

For this project, T-BACT is triggered for PM10 and VOC. T-BACT is satisfied with BACT for PM10 and VOC (see Appendix B), which is the use of HVLP spay guns, VOC content of coating as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed 340 g/l (2.8 lb/gal), and a spray booth with exhaust filters; therefore, compliance with the District's Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See Appendix C: Risk Management Review (RMR) Summary

The following permit conditions are required to ensure compliance with the assumptions made for the risk management review:

- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

- Emissions of parachlorobenzotrifluoride (PCBTF, CAS# 98-56-6) from this permit unit shall not exceed 3,246 lb-PCBTF/year. PCBTF emissions from this equipment shall be calculated as the sum of PCBTF emissions from each coating product used (including coatings, thinners, activators, etc.). PCBTF emissions from use of each coating product shall be calculated by the following equation: PCBTF emission (lb/year) = weight percent PCBTF in coating product (%) × density of coating product (lb/gal) × usage of coating product (gal/year). Records of PCBTF emissions shall be updated on a monthly basis, and totaled on a calendar year basis. [District Rule 4102]

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

$$\text{PM Conc. (gr/scf)} = \frac{\text{(PM emission rate) x (7,000 gr/lb)}}{\text{(Air flow rate) x (60 min/hr) x (24 hr/day)}}$$

PM_{10} emission rate = 9.1 lb/day. Assuming 100% of PM is PM_{10}
Exhaust Gas Flow = 8,000 (2) cfm
PM Conc (gr/scf) = [(9.1 lb/day) x (7,000 gr/lb.)] ÷ [(16,000 ft^3/min) x (60 min/hr) x (24 hr/day)]
PM Conc = 0.003 gr/scf

Since 0.003 grain/scf is much less than 0.1 gr/dscf compliance with this rule is expected. The following condition will be included on the ATC to show compliance:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4603 – Surface Coating of Metal Parts and Products, Plastic Parts and Products, and Pleasure Crafts

The purpose of this rule is to limit the emissions of volatile organic compounds (VOCs) from the coating of metal parts and products, large appliances parts or products, metal furniture, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure crafts, and from the organic solvent cleaning and storage and disposal of solvents and waste solvent materials associated with such coating. This rule also specifies the administrative and recordkeeping requirements and the test methods for determining the VOC content, the VOC emissions, the VOC capture efficiency, the acid content, the metallic or iridescent quality of coatings, and the VOC emissions from spray gun cleaning systems.

Section 5.1 states that, except as otherwise provided by this rule, no operator shall apply to any metal part or product any coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter (or pounds per gallon) of coating, less water and exempt compounds, as applied.

General Coating VOC Limits (less water and exempt compounds)		
Coating Category	Rule 4603 Limit g/l (lb/gal)	Highest VOC content of proposed coating g/l (lb/gal)
General Baked Coating	275 (2.3)	N/A
General Air-Dried Coating	340 (2.8)	2.1
Dip Coating of Steel Joists, air-dried (coatings with a viscosity, as applied, of more than 45.6 centistokes at 78°F or an average dry-film thickness of > than 2.0 mil)	340 (2.8)	N/A
Dip Coating of Steel Joists, air-dried (coatings with a viscosity, as applied, of less than or equal to 45.6 centistokes at 78°F and an average dry-film thickness of < than or equal to 2.0 mils)	400 (3.32)	N/A
General Air-Dried Coating	340 (2.8)	199 (2.1)

As indicated in the table above, the applicant has proposed air-dried coatings which will comply with the applicable VOC emission requirements of this rule.

The following condition will be placed on the proposed ATC to ensure compliance with the VOC content requirements of this rule:

- VOC content of coating as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed 340 g/l (2.8 lb/gal). [District Rules 2201, 4102, and 4603]

Section 5.2 states that, an operator subject to Section 5.2 shall not apply to any metal parts or products any specialty coating with a VOC content in excess of the limits in Table 1. The applicant has not proposed any specialty coatings; therefore, this section does not apply.

Section 5.3 states that in lieu of complying with the applicable VOC content limits of Section 5.1 or Table 1, an operator may control emissions from coating operations with an APCO-approved VOC emission control system that meets the requirements of Section 5.8. The applicant has proposed to use VOC compliant coatings, and has not proposed the use of a VOC emission control system. Therefore, this section does not apply.

Sections 5.4 through 5.7 apply to operations involving the coating of large appliance parts or products, metal furniture, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft. The proposed operation involves the coating of metal parts and products. Per the definitions in Section 3.0 of Rule 4603, the proposed operations do not involve the coating of any of the products listed in Sections 5.4 through 5.7. Therefore, these sections do not apply.

Section 5.8 applies to operators that use a VOC emission control system that shall be operated with an overall capture and control efficiency. As previously stated, a VOC emission control system is not proposed. Therefore, this section does not apply.

Section 5.9 states an operator shall minimize VOC emissions by complying with the following work practice standards:

5.9.1 An operator of large appliance parts and products, and metal furniture coating operations shall minimize VOC emissions by complying with the work practice standards specified in Sections 5.9.3 through 5.9.6.

5.9.2 Effective on and after January 1, 2011, an operator of metal parts and products coating operations, plastic parts and products coating operations, automotive/transportation and business machine plastic parts and products coating operations, and pleasure craft coating operations shall minimize VOC emissions by complying with work practice standards specified in Sections 5.9.3 through 5.9.6.

5.9.3 Store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers. The containers shall remain closed at all times, except when specifically in use.

5.9.4 Close mixing vessels that contain VOC coatings and other materials, except when specifically in use.

5.9.5 Minimize spills of any VOC-containing materials and clean up spills immediately.

5.9.6 Convey VOC-containing materials in closed containers or pipes.

The following condition will be placed on each proposed ATC to ensure compliance with the requirements of Section 5.9.

- {4690} The operator shall comply with the following work practice standards: 1) store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers, keeping the containers closed at all times except when specifically in use; 2) close mixing vessels that contain VOC coatings and other materials, except when specifically in use; 3) minimize spills of any VOC-containing materials and clean up spills immediately; and 4) convey VOC-containing materials in closed containers or pipes. [District Rule 4603]

Section 5.10.1 states that an operator shall not use organic solvents for cleaning operations that exceed the VOC content limits specified in the following table.

Rule 4603 Solvent VOC Limits	
Cleaning Solvent Use	Allowable VOC content less water and exempt compounds g/l (lb/gal)
Product Cleaning During Manufacturing Process or Surface Preparation for Coating Application	25 (0.21)
Repair and Maintenance Cleaning	25 (0.21)
Cleaning of Coating Application Equipment	25 (0.21)

Section 5.10.2 requires an operator to perform all solvent cleaning operations with cleaning material having VOC content of 25 g/L or less, unless such operations are performed within the control of an APCO-approved VOC emission control system that meets the requirements of Section 5.8.

A VOC emission control system has not been proposed. Therefore, the following condition will be listed on the permit to ensure compliance:

- {4704} VOC content of solvents used for all solvent cleaning operations shall not exceed 25 g/l (0.21 lb/gal). [District Rule 4603]

Section 5.11 states an operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, etc., coatings, adhesives, catalysts, and thinners in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. Therefore, the following condition will be listed on permit to ensure compliance:

- {4692} An operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, etc., coatings, adhesives, catalysts, and thinners in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4603]

Section 5.12 states that an operator shall not use or operate any coating application equipment on any metal parts and products, large appliances parts and products, metal furniture, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure crafts subject to the provisions of this rule unless one of the following methods is used:

5.12.1 Electrostatic application;
5.12.2 Electrodeposition;
5.12.3 High-Volume, Low-Pressure (HVLP) spray,
5.12.4 Flow coating;
5.12.5 Roll coating;
5.12.6 Dip coating;
5.12.7 Brush coating; or
5.12.8 Continuous coating;
5.12.9 Any other coating application method which is demonstrated to the APCO to be capable of achieving at least 65 percent transfer efficiency.

Section 5.12.3.1 requires that High-Volume, Low-Pressure (HVLP) spray equipment shall be operated in accordance with the manufacturer's recommendations.

Section 5.12.3.2 requires that for HVLP spray guns manufactured prior to January 1, 1996, the end user shall demonstrate that the gun meets HVLP spray equipment standards. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring the air atomizing pressure dynamically at the center of the air cap and at the air horns.

The applicant has proposed the use of an HVLP equipment; therefore, the following condition will be listed on the ATC to ensure compliance with Section 5.12:

- Only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment, or other application equipment pre-approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rules 2201 and 4603]

- {4691} Permittee shall demonstrate that HVLP guns manufactured prior to 1/1/96 operate between 0.1 and 10 psig of air atomizing pressure. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring the air atomizing pressure dynamically at the center of the air cap and at the air horns. [District Rule 4603]

Section 6.1.1 requires that each container or accompanying data sheet of any coating shall display the maximum VOC content of the coating, as applied, and after any thinning recommended by the manufacturer. The VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt compounds).

Section 6.1.2 requires that each container or accompanying data sheet of any coating display a statement of the manufacturer's recommendation regarding thinning of the coating.

The following condition will be added to each proposed ATC to ensure compliance with Sections 6.1.1 and 6.1.2:

- {4693} Each container or accompanying data sheet of any coating shall display: 1) a statement of the manufacturer’s recommendation regarding thinning of the coating, excluding the thinning of coatings with water, and 2) the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt compounds). [District Rule 4603]

Section 6.1.3 states manufacturers of any solvents subject to this rule shall indicate on the solvent container, or on a separate product data sheet or material safety data sheet, the name of the solvent, manufacturer’s name, the VOC content, and density of the solvent, as supplied. The VOC content shall be expressed in units of gm/liter or lb/gallon. Therefore, the following condition will be added to the permit:

- {4694} All solvents shall indicate on the solvent container, or on a separate product data sheet or material safety data sheet, the name of the solvent, manufacturer’s name, the VOC content (in gm/liter or lb/gallon), and density of the solvent, as supplied. [District Rule 4603]

Section 6.2.1 states that an operator subject to Section 5.0 or exempt by Sections 4.1, 4.8.5, 4.8.9, and 4.9 shall comply with the following requirement: maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information, as applicable:

6.2.1.1 mix ratio of components used,
6.2.1.2 VOC content and specific chemical constituents of coatings as applied, and
6.2.1.3 VOC content and specific chemical constituents of solvents used for surface preparation and cleanup.

Therefore, the following condition will be added to the permit:

- {modified 4695} The permittee shall maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information, as applicable: mix ratio of components used, VOC content and specific chemical constituents of coatings as applied, and VOC content and specific chemical constituents of solvents used for surface preparation and cleanup. [District Rules 2201 and 4603]

Section 6.2.2 requires the permittee to maintain daily records which include the following information:

6.2.2.1 volume coating/solvent mix ratio,

6.2.2.2 VOC content (lb/gal or grams/liter) and, for dip coating operations, viscosity (cSt) of coating,

6.2.2.3 volume of each coating used (gallons), and

6.2.2.4 quantity of cleanup solvent used (gallons).

Therefore, the following condition will be added to the permit:

- Permittee shall maintain daily records of quantity (gallons) and solids content of each coating applied, and calculated daily and annual PM10 emissions. Permittee shall also maintain daily records of VOC content as applied (lb/gal) of each coating used, quantity (gallons) of each coating used, and calculated daily and annual VOC emissions. [District Rules 2201 and 4603]

Section 6.2.3 applies only to operators using a VOC emission control system and it states that an operator shall maintain records of key system operating parameters which will demonstrate continuous operation and compliance of the emission control system during periods of emission producing activities. The applicant has not proposed a VOC emission control system. Therefore, this section does not apply.

Section 6.2.4 requires that consistent records may be kept in grams/liter and liters instead of pounds/gallon and gallons. An owner or operator of a stationary source subject to this rule shall maintain such records on a daily basis. An owner or operator that is subject to the exemption of Section 4.1 may maintain usage records of non-compliant coatings on the days that such non-compliant coatings are used.

Section 6.2.5 requires that the operator retain the records specified in Sections 6.2.1 through 6.2.4, as applicable, on site for a period of five years, make the records available on site during normal business hours to the APCO, ARB, or EPA and submit records to the APCO, ARB, or EPA upon request. The following condition will be listed on the permit to ensure compliance:

- {modified 1807} Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201 and 4603]

Compliance is expected with this rule.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

The City of Escalon (City) is the public agency having principal responsibility for approving the Modified Initial Study/15168 and 15183 Checklist for the 1230 Brennan Road project which covers this Project. As such, the City served as the Lead Agency for the Project. The City determined the project to be exempt from CEQA according to CEQA Guidelines §15162 (Subsequent EIRs and Negative Declarations). Consistent with CEQA Guidelines §15062, a Notice of Exemption was prepared and adopted by the City.

Pursuant to CEQA Guidelines §15250, the District is a Responsible Agency for the Project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's thresholds of significance for criteria pollutants. Thus, the District concludes that through a combination of project design elements and permit conditions, project specific stationary source emissions will be reduced to less than significant levels. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

Indemnification Agreement / Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), an indemnification agreement (IA) and/or a letter of credit (LOC) may be required. The decision to require an IA and/or an LOC is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an IA and/or an LOC will not be required for this project.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC N-10486-1-0 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
N-10486-1-0	3020-01-B	26.65 hp electric	$155

XI. Appendices

A: Draft ATC
B: Project Specific Top-Down BACT Analysis
C: Risk Management Review (RMR) and AAQA Summaries
D: Quarterly Net Emissions Change (QNEC)
E: Coating Material Listings
F: Dry Exhaust Filter Specification
G: Public Notice Comments and District Responses

APPENDIX A
Draft ATC

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-10486-1-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: WELDWAY STEEL FABRICATION
MAILING ADDRESS: 521 HI TECH PARKWAY
OAKDALE, CA 95361

LOCATION: 1230 BRENNAN ROAD
ESCALON, CA 95320

EQUIPMENT DESCRIPTION:
METAL PARTS AND PRODUCTS COATING OPERATION CONSISTING OF A PAINT SPRAY BOOTH WITH DRY EXHAUST FILTERS

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
6. All coating shall be conducted in booth with filters in place, fan(s) operating, and doors closed. [District Rule 2201]
7. Booth shall be equipped with dry filters achieving a PM10 control efficiency of at least 98% by weight. [District Rule 2201]
8. Only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment, or other application equipment pre-approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rules 2201 and 4603]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

N-10486-1-0 : 1/26/2026 2:50:15 PM -- NGUYENT : Joint Inspection NOT Required

9. {4691} Permittee shall demonstrate that HVLP guns manufactured prior to 1/1/96 operate between 0.1 and 10 psig of air atomizing pressure. Satisfactory proof will be either in the form of manufacturer's published technical material or by a demonstration using a certified air pressure tip gauge, measuring the air atomizing pressure dynamically at the center of the air cap and at the air horns. [District Rule 4603]

10. Particulate matter (PM10) emission rate shall not exceed either of the following limits: 9.1 lb/day or 112 lb/year. [District Rule 2201]

11. Volatile organic compound (VOC) emission rate shall not exceed either of the following limits: 217.5 lb/day or 2,688 lb/year. [District Rule 2201]

12. Epoxy and hardener coatings shall only be applied with a roller applicator. [District Rule 2201]

13. PM10 emissions from the use of primer shall be calculated as follows: PM10 emissions = Solids content (lb/gallon) x usage (gallon/day) x (0.005). Total PM10 emissions is the sum of PM10 emissions from all primer coating materials used. [District Rule 2201]

14. VOC emissions from the use of primer, hardener, and epoxy shall be calculated as follows: VOC emissions = VOC content (lb/gallon) as applied x usage (gallon/day). Total VOC emissions is the sum of VOC emissions from all coating materials used. [District Rule 2201]

15. Emissions of parachlorobenzotrifluoride (PCBTF, CAS# 98-56-6) from this permit unit shall not exceed 3,246 lb-PCBTF/year. PCBTF emissions from this equipment shall be calculated as the sum of PCBTF emissions from each coating product used (including coatings, thinners, activators, etc.). PCBTF emissions from use of each coating product shall be calculated by the following equation: PCBTF emission (lb/year) = weight percent PCBTF in coating product (%) x density of coating product (lb/gal) x usage of coating product (gal/year). Records of PCBTF emissions shall be updated on a monthly basis, and totaled on a calendar year basis. [District Rule 4102]

16. No coatings, solvents, or additives containing any of the following compounds shall be used: lead compounds, hexavalent chromium, cadmium, manganese, and/or nickel compounds. [District Rule 4102]

17. VOC content of coatings as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed 340 g/l (2.8 lb/gal). [District Rules 2201, 4102, and 4603]

18. {4704} VOC content of solvents used for all solvent cleaning operations shall not exceed 25 g/l (0.21 lb/gal). [District Rule 4603]

19. {4690} The operator shall comply with the following work practice standards: 1) store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers, keeping the containers closed at all times except when specifically in use; 2) close mixing vessels that contain VOC coatings and other materials, except when specifically in use; 3) minimize spills of any VOC-containing materials and clean up spills immediately; and 4) convey VOC-containing materials in closed containers or pipes. [District Rule 4603]

20. {4692} An operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, etc., coatings, adhesives, catalysts, and thinners in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4603]

21. {4693} Each container or accompanying data sheet of any coating shall display: 1) a statement of the manufacturer's recommendation regarding thinning of the coating excluding the thinning of coatings with water, and 2) the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter of coating (less water and exempt compounds). VOC content displayed may be calculated using product formulation data, or may be determined using approved test methods. [District Rule 4603]

22. {4694} All solvents shall indicate on the solvent container, or on a separate product data sheet or material safety data sheet, the name of the solvent, manufacturer's name, the VOC content (in gm/liter or lb/gallon), and density of the solvent, as supplied. [District Rule 4603]

23. Permittee shall maintain daily records of quantity (gallons) and solids content of each coating applied, and calculated daily and annual PM10 emissions. Permittee shall also maintain daily records of VOC content as applied (lb/gal) of each coating used, quantity (gallons) of each coating used, and calculated daily and annual VOC emissions. [District Rules 2201 and 4603]

CONDITIONS CONTINUE ON NEXT PAGE

24. The permittee shall maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information, as applicable: mix ratio of components used, VOC content and specific chemical constituents of coatings as applied, and VOC content and specific chemical constituents of solvents used for surface preparation and cleanup. [District Rules 2201 and 4603]
25. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201 and 4603]

APPENDIX B
Project Specific Top-Down BACT Analysis

Top-Down BACT Analysis for VOC Emissions for Metal Parts and Products Coating Operation Using Non-Specialty Coatings

Metal Parts and Products Coating Operation:

The District BACT Clearinghouse does not currently include a BACT Guideline that applies to the metal parts and products coating operations; therefore, a project-specific BACT analysis will be performed in accordance the District BACT policy to determine the BACT requirements for the proposed metal parts and products coating operation.

BACT Analysis for VOC Emissions:

As stated above, a project-specific BACT analysis will be performed for the proposed metal parts and products coating operation evaluated under this project.

Source of Emissions

Surface coatings are applied to a variety of metals products for protective, decorative, or functional purposes. Volatile Organic Compounds (VOCs) and Particulate Matter (PM) are the pollutants of concern produced by the coating process. VOCs are contained in the coating and are emitted as the water and solvents evaporate as the coatings dry.

VOC emissions from the coating operation can be reduced by limiting the VOC content of the coatings used, by using application methods that increase the amount of the coating transferred to the desired surface (thereby using less coating), or by capturing and collecting the emissions and routing them to a control system. Based on a survey of control system manufacturers, technologically feasible control systems include thermal/catalytic incinerators and carbon adsorption systems.

a. Step 1 - Identify All Possible Control Technologies

The following sources were surveyed to identify potentially applicable control options:

- BACT Clearinghouses

  - EPA RACT/BACT/LAER clearinghouse
  - CARB BACT clearinghouse
  - South Coast AQMD (SCAQMD) BACT clearinghouse
  - Bay Area AQMD (BAAQMD) BACT clearinghouse
  - Sacramento Metro AQMD (SMAQMD) BACT clearinghouse
  - San Diego County APCD (SDCAPCD) BACT clearinghouse
  - San Joaquin Valley APCD (SJVAPCD) BACT clearinghouse

- Rules and Regulations

  - SCAQMD Rule 1107 (2/7/20)
  - BAAQMD Regulation 8, Rule 19 (10/16/02)

- SMAQMD Rule 451 (10/20/10)
- SDCAPCD Rule 67.3 (4/9/03)
- SJVAPCD Rule 4603 (9/17/09)
- Code of Federal Regulations, Title 40, Parts 60 (NSPS) and 63 (NESHAPs)

- Currently permitted operations within SJVAPCD

A. Survey of BACT Clearinghouses

The EPA RACT/BACT/LAER clearinghouse does not include general guidelines, only determinations made by individual agencies. The BACT determinations for metal parts and products coating operations were reviewed, and the entries that are most relevant to the current project are summarized in the table below. In order to streamline the review process, only determinations that are unique and/or potentially more stringent than the current project proposal and District rule requirements are listed.

RBLC ID	Control Method & Control Efficiency (CE)
NV-0049	HVLP spray gun, store VOC-containing coatings in closed containers, and VOC content of coatings limited to 7.25 lb/gallon.

The CARB BACT clearinghouse does contain BACT determination that is applicable to generic metal parts coating operations with coatings, and the BACT clearinghouse is taken from the California air districts and are discussed below.

The SCAQMD BACT clearinghouse for non-major polluting facilities has requirements based on the subcategory of product being coated and the amount of VOC emissions. The requirements that would be applicable to the current project are shown in the following table:

Process: Subcategory/Rating/Size	Control Technology
For non-automotive booths with <1,170 lb/month VOC emissions	Achieved in Practice BACT: - Compliance with Applicable SCAQMD Regulation XI Rules, VOC limits for general multi-components for air-dried is <2.8 lb/gal or less. Technology Feasible: - Not specified
For non-automotive booths with ≥1,170 lb/month VOC emissions	Achieved in Practice BACT: - Compliance with Applicable SCAQMD Regulation XI Rules, and the VOC control system with ≥90% collection efficiency and ≥95% destruction efficiency, OR - Use of super Clean Materials (<5% VOC by weight); OR - Use of low-VOC materials resulting in an equivalent emission reduction

	Technology Feasible: - Not specified

The SCAQMD BACT clearinghouse has two BACT guidelines for metal parts and products coating operation. However, for this project, the total VOC annual limits is lower than the major source limits, therefore it would not be achieved in practice, rather is technologically feasible.

Guideline	Category & Class	Control Technology
161.5.1	Spray Booth – Coating of Misc. Metal Parts and Products (< 50 lb/day of Uncontrolled Emissions)	Achieved in Practice BACT: - Complying with Reg. 8, Rule 19, VOC limits for general multi-components for air-dried is <2.8 lb/gal or less. Technologically Feasible: - Coatings with VOC content and transfer efficiency complying with Reg. 8, Rule 19, and emissions controlled to overall capture/destruction efficiency ≥ 90%

The BAAQMD BACT clearinghouse has two BACT guidelines for metal parts and products coating. The requirements that would be applicable to the current project are shown in the following table:

Guideline	Category & Class	Control Technology
161.5.1	Spray Booth – Coating of Misc. Metal Parts and Products (< 50 lb/day of Uncontrolled Emissions)	Achieved in Practice BACT: - Complying with Reg. 8, Rule 19, VOC limits for general multi-components for air-dried is <2.8 lb/gal or less. Technologically Feasible: - Coatings with VOC content and transfer efficiency complying with Reg. 8, Rule 19, and emissions controlled to overall capture/destruction efficiency ≥ 90%

The SMAQMD clearinghouse has one BACT guidelines for metal coating operations. The requirements are shown in the table below:

Guidelines	Category & Equipment	Control Technology
336	Coating Metal, ≤ 6,198 lbs VOC/year and facilities ≤ 40,000 lbs VOC/year	Achieved in Practice BACT: - HVLP spray or equivalent application equipment - Enclosed spray gun cleaning system - Compliance with SMAQMD Rule 451(A)(B) coating, solvent, and stripper standards except for General-One Component use 275 g/l and for Etching Filler use 340 g/l for Air-Dried and 275 g/l for Baked. Technology Feasible: Not specified

The SDCAPCD clearinghouse has one BACT guideline for metal parts and products coating operations. The requirements are shown in the table below:

Guideline Source	Equipment	Control Technology
NSR Requirements for BACT Guidance Document, Page 51 (November 2023)	Metal Parts & Products Coating (< 10 gal/day)	Achieved in Practice: - Compliance with Rule 67.3, Metal Parts & Products Coating Operations. Technologically Feasible & T-BACT: - Not specified

The SJVAPCD clearinghouse does not currently include a BACT Guideline that applies to metal parts and products coating operations. However, the District formerly had BACT Guideline 4.3.1, which applied to air-dried metal parts and products coating operations. The requirements when BACT Guideline 4.3.1 was last valid will be shown and used for this BACT analysis:

Guideline Source	Equipment	Control Technology
BACT Guideline 4.3.1 (3/18/1999)	Metal Parts & Products Coating - (Air Dried)	Achieved in Practice : - Coating with a VOC content of 2.8 lb/gal or less; HVLP spray equipment; and an enclosed spray gun cleaning system. Technologically Feasible & T-BACT: - Thermal/catalytic incineration - Carbon absorption

Summary of BACT Guidelines:

Based on SCAQMD BACT guideline, the use of a VOC control system is required for a coating operation with an annual emission rate greater than 1,170 lb-VOC/month, and for this metal coating operation, the facility annual emission rate is less than 1,170 lb-VOC/month; therefore, it is not achieved-in-practice requirement for metal parts and products coating operations below this limit. , therefore Per SJVAPCD Policy 1305, Best Available Control Technology, the VOC control system option is a technologically feasible option that also has to be cost effective to be required as BACT for any metal parts and products coating operation; therefore, the control system is not considered achieved-in-

practice based on the VOC control requirement in SCAQMD BACT, and will be considered as a technologically feasible option for SJVAPCD BACT.

Based on the above information, the current most stringent BACT requirement for the air-dried metal parts and products coating operations would be:

Achieved-in-Practice:
- Coatings with a VOC content (less water and exempt compounds) of 2.8 lb/gal or less.
- High Volume Low-Pressure (HVLP) or equivalent spray equipment.

Technology Feasible:
- Thermal/catalytic incineration
- Carbon adsorption

Alternate Basic Equipment:
None identified.

B. Survey of Rules and Regulations:

The requirements of the rules and regulations for metal parts and products coating operations are summarized in the table below:

Agency Rule/Regulation	Requirements
SDCAPCD Reg IV Rule 67.3	Non-Specialty Coating VOC Limits: A person shall not apply any coating with a VOC content in excess of the following limits, as applied, excluding water and exempt compounds: Metal Parts Coating (Air Dried) – 340 grams/Liter (2.8 pounds/gallon)
	Allowed Application Methods: No coatings shall be applied unless one of the following application methods is used: – Electrostatic Spray Application – Flow Coat Application – Dip Coat Application – Roll Coat – High Volume Low-Pressure (HVLP) spray application – Hand Application Methods – Other coating application methods that are demonstrated to have a transfer efficiency at least equal to one of the above application methods, and which are used in such a manner that the parameters under which they were tested are permanent features of the method. Such coating application methods shall be approved in writing prior to use by the Air Pollution Control Officer
	Surface Preparation Or Cleanup Solvents:

<table>
<tr><td></td><td>A person shall not use VOC-containing materials for surface preparation or cleanup unless:

– The material contains 200 grams or less of VOC per liter of material
– The material has an initial boiling point of 190° C (374° F) or greater
– The material has a total VOC vapor pressure of 20 mm Hg or less, at 20° C (68° F)</td></tr>
<tr><td rowspan="2">SCAQMD
Rule 1107</td><td>Operating Equipment:

A person shall not apply VOC-containing coatings to metal parts and products subject to the provisions of this rule unless the coating is applied with equipment operated according to the equipment manufacturer specifications, and by the use of one of the following methods:

– Electrostatic Application
– Flow Coat
– Dip Coat
– Roll Coater
– High Volume Low-Pressure (HVLP) Spray
– Hand Application Methods
– Paint brush
– Such other coating application methods as are demonstrated to the Executive Officer to be capable of achieving a transfer efficiency equivalent to HVLP and for which written approval of the Executive Officer has been obtained</td></tr>
<tr><td>VOC Content of Coatings

A person shall not apply any coatings to metal parts and products which exceeds the applicable limits specified below:

<table>
<tr><td rowspan="2">Coating Category</td><td>VOC Limits
Less Water and Less Exempt Compounds
grams/liter (lb/gal)</td></tr>
<tr><td>Air Dried</td></tr>
<tr><td>Metal Parts</td><td>340 (2.8)</td></tr>
</table>

VOC Content for Coating Removers (Strippers)

A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

VOC Content of Solvent

This rule applies to all persons using solvent for cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC-containing materials used in cleaning operations shall be carried out pursuant to Rule 1171 - Solvent Cleaning Operations. The solvent used to perform solvent cleaning operations shall comply with the applicable requirements specified below:</td></tr>
</table>

	<table><tr><th>Solvent Cleaning Activity</th><th>VOC Limits g/l (lb/gal)</th></tr><tr><td>(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application</td><td></td></tr><tr><td>(i) General</td><td>25 (0.21)</td></tr><tr><td>(ii) Electrical Apparatus Components & Electronic Components</td><td>100 (0.83)</td></tr><tr><td>(iii) Medical Devices & Pharmaceuticals</td><td>800 (6.7)</td></tr><tr><td>(B) Repair and Maintenance Cleaning</td><td></td></tr><tr><td>(i) General</td><td>25 (0.21)</td></tr><tr><td>(ii) Electrical Apparatus Components & Electronic Components</td><td>100 (0.83)</td></tr><tr><td>(iii) Medical Devices & Pharmaceuticals</td><td></td></tr><tr><td>(A) Tools, Equipment, & Machinery</td><td>800 (6.7)</td></tr><tr><td>(B) General Work Surfaces</td><td>600 (5.0)</td></tr><tr><td>(C) Cleaning of Coatings or Adhesives Application Equipment</td><td>25 (0.21)</td></tr><tr><td>(D) Cleaning of Polyester Resin Application Equipment</td><td>25 (0.21)</td></tr></table>
BAAQMD Reg. 8, Rule 19	VOC Content of Specialty Coatings A person shall not apply to any miscellaneous metal part or product any coating with a VOC content in excess of the following limits, as applied, excluding water, unless emissions to the atmosphere are controlled to an equivalent level by air pollution abatement equipment with an abatement device efficiency of at least 85 percent that meets the requirements of Regulation 2, Rule 1. Metal Parts (Air Dried) - 340 grams/Liter (2.8 pounds/gallon)
	Spray Application Equipment Limitations Any person who uses spray application equipment to apply coatings to miscellaneous metal parts or products within the District shall use one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85 percent: – High-Volume, Low-Pressure (HVLP) Spray, operated in accordance with the manufacturer's – Electrostatic spray, operated in accordance with the manufacturer's recommendations – Detailing gun – Any other coating spray application that achieves an equivalent transfer efficiency compared to the spray application methods listed in subsections 313.1 through 313.3. Prior written approval from the APCO shall be obtained for each alternative method used
	Solvent Evaporative Loss Minimization Unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85%, any person using organic solvent for surface preparation

<table>
<tr><td></td><td>and cleanup or any person mixing, using or disposing of coatings containing organic solvent:

– Shall use closed containers for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup's
– Shall not use organic solvent for the cleanup of spray equipment including paint lines with a VOC content in excess of 50 g/l (0.42 lbs/gal) unless either (i) the solvent is pressurized though spray equipment with the atomizing air off or dispensed from a small non-atomizing container, and collected and stored in a closed container until recycled or properly disposed of offsite, or (ii) a spray gun washer subject to and in compliance with the requirements of Regulation 8, Rule 16 is used
– Shall close containers of coating, catalyst or solvent when not in use.</td></tr>
<tr><td></td><td>Surface Preparation Standards

No person shall use a surface preparation solvent with a VOC content that exceeds 50 g/l (0.42 lbs/gal), as applied, for surface preparation of any metal part or product unless emissions to the atmosphere are controlled to an equivalent level by an approved emission control system with an overall abatement efficiency of at least 85 percent.</td></tr>
<tr><td>SMAQMD
Rule 451</td><td>VOC Content Of Metallic Coatings For Miscellaneous Metal Parts and Products

<table><tr><td rowspan="2">Coating Category</td><td>VOC Limits Less Water and Less Exempt Compounds grams/liter (lb/gal)</td></tr><tr><td>Air Dried</td></tr><tr><td>Metal Parts Coating</td><td>340 (2.8)</td></tr></table>
VOC Content of Metallic Coatings for Metal Furniture

A person shall not apply to metal furniture any coating that exceeds the following VOC content limits as applied.

<table><tr><td rowspan="2">Coating Category</td><td>VOC Limits Less Water and Less Exempt Compounds grams/liter (lb/gal)</td></tr><tr><td>Air Dried</td></tr><tr><td>Metal Parts Coating</td><td>340 (2.8)</td></tr></table></td></tr>
<tr><td></td><td>VOC Content For Coating Removers (Strippers)

A person shall not use a stripper on miscellaneous metal parts and products which contains more than 200 grams of VOC per liter of material (1.7 pounds per gallon).</td></tr>
</table>

	Application Equipment Requirements A person shall not apply to any miscellaneous metal part or product any coating unless one of the following application methods is used: – Roll Coater – Dip Coat – Electrostatic – Flow Coat – High Volume Low-Pressure (HVLP) Application Equipment – Low-Volume Low-Pressure (LVLP) Application Equipment – Hand Application Equipment such as brush or roller – Any other equivalent method which has been approved in writing by the Air Pollution Control Officer and the U.S. Environmental Protection Agency
	Surface preparation, cleanup, and storage requirements Any person subject to this rule shall comply with the following requirements: – Closed containers shall be used for the disposal of cloth, paper, or sponges used for surface preparation, cleanup, coating application and coating removal – VOC-containing materials shall be stored in containers, which are closed when not in use, shall be disposed of in a manner that the VOC are not emitted into the atmosphere, and shall be conveyed from one location to another in closed containers or through pipes – A person shall not perform cleanup of application equipment (including spray gun nozzles) with a material containing VOC in excess of 25 grams per liter (0.21 pounds per gallon) – A person shall not perform product cleaning or surface preparation with a material containing VOC in excess of 25 grams per liter (0.21 pounds per gallon) – Spillage of VOC-containing materials shall be minimized
SJVAPCD Rule 4603	General Coating VOC Limits No operator shall apply to any metal part or product any coating with a VOC content in excess of the following limit, expressed as grams of VOC per liter (or pounds per gallon) of coating, less water and exempt compounds, as applied. Air-Dried Metallic Coating - 340 grams/Liter (2.8 pounds/gallon)

VOC Coating Limits for Large Appliance Parts or Products Coating Operation and Metal Furniture Coating Operation

An operator whose total actual VOC emissions from all large appliance parts or products coating operations, or metal furniture coating operations, including related cleaning activities, at a stationary source are equal to or greater than three (3) tons of VOC per 12-month rolling period, before consideration of controls, shall not apply any coating except the specialty coating with a VOC content in excess of the applicable limits specified below.

Coating Category	VOC Limits Less Water and Less Exempt Compounds grams/liter (lb/gal)
	Air-dried
General, Multi-Component	340 (2.8)

VOC Emission Control System Requirements

In lieu of complying with applicable VOC coating and solvent limits of this rule, an operator may use a VOC emission control system that controls emissions from the source operation and meets the following requirements:

- The VOC emission control system shall be under District permit.
- The VOC emission control system shall comply with the requirements of Sections 5.8.3 and 5.8.4 during periods of emission-producing activities.
- The VOC emission control system shall be operated with an overall capture and control efficiency of at least 90 percent by weight.

Organic Solvent Cleaning Requirements

An operator shall not use organic solvents for cleaning operations that exceed the VOC content limits specified in the table below.

VOC Content Limits for Organic Solvents Used in Cleaning Operations, expressed grams/liter (lb/gal) of material	
Type of Solvent Cleaning Operation	VOC Content Limit
Product Cleaning During Manufacturing Process or Surface Preparation for Coating Application	25 (0.21)
Repair and Maintenance Cleaning	25 (0.21)
Cleaning of Coating Application Equipment	25 (0.21)

Allowed Application Equipment Requirements

- Electrostatic Application
- Electrodeposition
- High Volume Low-Pressure (HVLP)
- Flow Coating
- Roll Coating
- Dip Coating
- Brush Coating
- Continuous Coating
- Other coating methods capable of achieving at least 65%

	transfer efficiency
40 CFR Part 60 (NSPS)	No applicable subparts
40 CFR Part 63, Subpart HHHHHH, Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	– Management practices to minimize the evaporative emissions of MeCl – All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology
40 CFR Part 63, Subpart MMMM, Surface Coating of Miscellaneous Metal Parts and Products	– For each new general use coating affected source, limit organic HAP emissions to no more than 1.9 lb per gal coating solids used during each 12-month compliance period. – All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers. – Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized. – Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes. – Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents. – Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

Summary of Applicable Rules and Regulations:

As shown in the above table, the current most stringent Rule requirements for metal parts and products coating operation would be:

- Coatings with a VOC content (less water and exempt compounds) of 2.8 lb/gal or less.
- High Volume Low-Pressure (HVLP) or other application methods in Rules.
- Use of Solvents with a VOC content of 25 gram/liter (0.21 lb/gal).

C. Survey of Currently Permitted Operations within SJVAPCD

In order to evaluate what VOC emission rates are currently being achieved by metal parts and products coating operations permitted within SJVAPCD, permit requirements of several permitted units were reviewed. The permit limits and requirements are summarized in the following table:

Permit	Control Equipment	Industry
C-535-48-1	VOC limits listed in Rule 4603 HVLP gun for application method	Wastewater Reclamation Facility
C-9232-2-0	VOC limits listed in Rule 4603 HVLP and compliant airless gun for application method	Metal Fabrication
C-1193-3-0	VOC limits listed in Rule 4603 HVLP gun for application method	Metal Parts and Products Coating
C-9076-1-0	VOC limits listed in Rule 4603 HVLP or equivalent application method	Plastic Foam Products Manufacturing
S-1633-22-0	VOC limits listed in Rule 4603 HVLP gun for application method	Acrolein Production and Repackaging
N-9328-1-1	VOC limits listed in Rule 4603 HVLP gun for application method	Metal Parts and Products Coating

As shown in the previous table, the consistently permitted VOC control method is the use of coatings compliant with District Rule 4603, and use of HVLP application or equivalent application methods.

Summary of Permit Requirements to Establish the Achieved-in-Practice BACT Standard:

Based on the above information, the current most stringent achieved in practice BACT emissions limitation for metal parts and products coating operations would be:

- Coatings with a VOC content (less water and exempt compounds) of 2.8 lb/gal or less.
- High Volume Low-Pressure (HVLP) or equivalent application method.
- Use of Cleaning Solvents with a VOC content of 25 gram/liter (0.21 lb/gal).

b. Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options listed in Step 1. All of the emission control options under consideration are technologically feasible.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Thermal/Catalytic Incineration: 98% (per District Gear 12 - Motor Vehicle and Mobile Equipment Coating Operation) - technologically feasible
2. Carbon Absorption: 95% (per District Gear 12 - Motor Vehicle and Mobile Equipment Coating Operation) - technologically feasible
3. Coatings with VOC content of 2.8 lb/gal or less; HVLP (or equivalent) spray equipment; and use of cleaning solvents with a VOC content of 25 gram/liter (0.21 lb/gal): 75% - achieved in practice

d. Step 4 - Cost Effectiveness Analysis

Design Parameters for booth control technologies:

Exhaust Gas Flow Rate (Q): 16,000 cfm (two 8,000 cfm fans - manufacturer's data)
VOC (lb/year): 2,688 lb-VOC/year

Thermal/Catalytic Incineration:

98% total control efficiency using a VOC capture and control system with thermal/catalytic incineration and 100% VOC capture.

A. Emission Reduction:

Based on the above determined project emissions and assuming a VOC capture efficiency of 100% and incinerator destruction efficiency of 98%, the amount of VOC emissions reduced is calculated below.

VOC Emission Reductions = Annual PE_{VOC} × 1 tons/2,000 lb × Overall Control Eff.
= 2,688 lb/year × 1 tons/2,000 lb × 0.98
= **1.3 ton/year**

B. Annual Natural Gas Cost:

It will be shown that the cost of the natural gas alone will be adequate to cause these technologies to be not cost effective per District BACT policy. This estimate does not include the capital cost of purchasing the incinerator unit or any additional operational and maintenance costs. The increase in temperature of the contaminated air stream required by a catalytic incineration system is less than for a thermal incineration. Therefore, by demonstrating that the cost of the natural gas required by a catalytic incinerator would cause such a system to not be cost effective will also be sufficient to show that a thermal oxidation system would not be cost effective either.

Based on the applicant proposed annual usage rate, the annual calculations is based a total of 12 to 15 days of operation per year. For this project, we use a worst case and estimate annual hrs per year to be 1,000 hrs/year.

The cost of natural gas for this operation is calculated based on an operating schedule of 1,000 hr/year = 60,000 min/year). A heat exchanger efficiency of 50% is assumed.

Natural Gas Usage = Flow Rate × Cp_{Air} × ΔT × HEF

Where: Flow Rate = Air flow through the incinerator (16,000 cfm)
Cp_{Air} = specific heat of air is 0.0194 Btu/scf-˚F
ΔT = increase in the temperature of the contaminated air stream required for catalytic incineration to occur (It will be assumed that the air stream would increase in temperature from 77°F to 600°F.)
HEF = heat exchanger factor (0.5, assumed)

Natural Gas Usage = 16,000 cfm × 0.0194 Btu/ scf - °F × (600 °F - 77 °F) × 0.5 × 60,000 min/year × MMBtu/10^6 Btu
= 4,870 MMBtu/year

Natural Gas Cost = 4,870 MMBtu/year × $16.24/MMBtu[(1)]
= **$79,092**

C. Cost Effectiveness of a Thermal/Catalytic Incinerator with 100% Capture:

Cost Effectiveness = Natural Gas Cost ($/year) ÷ Emission Reduction (ton-VOC/year)
= $79,092/year ÷ 1.3 ton-VOC/year
= **$60,840/ton-VOC**

The cost of natural gas to operate a catalytic incinerator with 100% capture is $60,840/ton, which is greater than the District's VOC cost-effectiveness threshold of $27,100/ton. Therefore, this VOC control option is not cost effective and is being removed from consideration for this project.

Carbon Adsorption:

95% total control using a VOC capture and control system with carbon adsorption and 100% capture.

A. Emission Reduction:

Based on the above determined emissions and assuming a VOC capture efficiency of 100% and carbon adsorption system control efficiency of 95%, the amount of VOC emissions reduced is calculated below.

VOC Emission Reductions = Annual PE_{VOC} × 1 tons/2,000 lb × Overall Control Eff.
= 2,688 lb/year × 1 tons/2,000 lb × 0.95
= **1.3 ton/year**

B. Annual Carbon Replacement Costs:

Carbon adsorption occurs when air containing VOCs is blown through a carbon unit and the VOCs are adsorbed onto the surface of the cracks in the activated carbon particles. Two main areas of cost are the cost of the carbon adsorption unit itself and the annual operating cost of the unit. The primary annual operating cost is the replacement of the spent activated carbon. It will be shown that the annual cost to replace the spent activated carbon alone will be adequate to cause this technology to be not cost effective per District BACT policy. This estimate does not include the capital cost of purchasing the carbon adsorption unit or any additional operational and maintenance costs.

[1] The natural gas price used is based on the average of the California industrial natural gas price over 6 months (Jan-25 through Jun-25) as published by the U.S. Energy Information Administration in their latest monthly natural gas report. See https://www.eia.gov/dnav/ng/ng_pri_sum_a_EPG0_PCS_DMcf_m.htm

Since carbon can adsorb 20% of its weight in VOCs, and the control efficiency of carbon adsorption is 95%, the total amount of carbon required per year can be determined as follows:

Carbon required = 2,688 lb-VOC/year x 0.95 x 1 lb-carbon/0.2 lb-VOC
= 12,768 lb-carbon/year

Per Carbon Bulk Sales (carbonbulksales.com; formerly EnviroSupply & Service Inc., http://envirosupply.net), the current lowest cost of activated carbon for air filtration is $261.00 for 55 lb, excluding shipping. The lowest average cost is thus $4.75/lb.

Annual Carbon Replacement Cost = 12,768 lb-Carbon/year × $4.75/lb-Carbon
Annual Carbon replacement Cost = $60,648/year

C. Cost Effectiveness of a Carbon Adsorption System:

Cost Effectiveness = Annual Carbon Replacement Cost ($/year)
÷ Emission Reduction (ton-VOC/year)
= $60,648/year ÷ 1.3 ton-VOC/year
= **$46,652/ton-VOC**

The cost to operate a carbon adsorption system is $46,652/ton, which is greater than the District's VOC cost-effectiveness threshold of $27,100/ton. Therefore, this VOC control option is not cost effective and is being removed from consideration for this project.

Coatings with VOC content (less water and exempt compounds) of 2.8 lb/gal or less, High Volume Low-Pressure (HVLP) or equivalent spray equipment, and the use of organic solvents with a VOC content of 0.21 lb/gal or less

This control option is achieved in practice. Therefore, a cost effectiveness analysis is not required.

e. Step 5 – Select BACT

BACT for this unit is the use of coatings with VOC content (less water and exempt compounds) of 2.8 lb/gal or less, High Volume Low-Pressure (HVLP) or equivalent spray equipment, and the use of organic solvents with a VOC content of 0.21 lb/gal or less. The applicant has proposed coatings with a maximum VOC content of 2.8 lb/gal and will use HVLP spray equipment. The operator will be required to use organic solvents with a VOC content of 25 g/L (0.21 lb/gal) or less. Therefore, BACT requirements are satisfied.

Top-Down BACT Analysis for PM_{10} Emissions for Metal Parts and Products Coating Operation Using Non-Specialty Coatings

Metal Parts and Products Coating Operation:

The District BACT Clearinghouse does not currently include a BACT Guideline that applies to the metal parts and products coating operations; therefore, a project-specific BACT analysis will be performed in accordance the District BACT policy to determine the BACT requirements for the proposed metal parts and products coating operation.

BACT Analysis for PM10 Emissions:

As stated above, a project-specific BACT analysis will be performed for the proposed metal parts and products coating operation evaluated under this project.

Source of Emissions

Surface coatings are applied to a variety of metal products for protective, decorative, or functional purposes. Particulate Matter with aerodynamic diameter of less than 10 microns (PM10) are the only pollutants of concern produced by the coating process. PM10 emissions result from the overspray of coating materials that do not adhere to the surface and become airborne during application.

PM10 emission from the coating operation will be controlled by the use of High Volume Low Pressure (HVLP), or District approved equivalent spray equipment. HVLP spray equipment reduces emissions by increasing transfer efficiency, resulting in more coating material being applied to the target surface and less overspray. In addition to the use of HVLP equipment, technologically feasible control options for PM10 include exhaust filters and paint spray booth.

Step 1 - Identify all control technologies

The following sources were surveyed to identify potentially applicable control options:

- BACT Clearinghouses

- EPA RACT/BACT/LAER clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD (SCAQMD) BACT clearinghouse
- Bay Area AQMD (BAAQMD) BACT clearinghouse
- Sacramento Metro AQMD (SMAQMD) BACT clearinghouse
- San Diego County APCD (SDCAPCD) BACT clearinghouse
- San Joaquin Valley APCD (SJVAPCD) BACT clearinghouse

- Rules and Regulations

- No District Rules were located for PM10
- Code of Federal Regulations, Title 40, Parts 60 (NSPS) and 63 (NESHAPs)

- Currently permitted operations within SJVAPCD

A. Survey of BACT Clearinghouses

The EPA RACT/BACT/LAER clearinghouse does not include general guidelines, only determinations made by individual agencies. The BACT determinations for metal parts and products coating operations were reviewed, and the entries that are most relevant to the current project are summarized in the table below. In order to streamline the review process, only determinations that are unique and/or potentially more stringent than the current project proposal and District rule requirements are listed.

The CARB BACT clearinghouse does contain BACT determination that is applicable to generic metal parts coating operations with coatings, and the BACT clearinghouse is taken from California air districts and is discussed below.

The SCAQMD BACT clearinghouse for non-major polluting facilities has requirements based on the subcategory of product being coated and the amount of PM10 emissions. The requirements that would be applicable to the current project are shown in the following table:

Pollutant	Process: Rating/Size	Control Technology
PM10	All	Achieved in Practice BACT: 1. Dry Filters or waterwash Technology Feasible: Not specified

The SCAQMD BACT clearinghouse for major polluting facilities does not include any BACT guideline for PM10 emissions from metal parts and products coating operations.

The BAAQMD BACT clearinghouse has one BACT guideline for metal parts and products coating. The requirements that would be applicable to the current project are shown in the following table:

Guideline	Category & Class	1. Technologically Feasible/Cost Effective 2. Achieved in Practice
161.5.2	Spray Booth – Coating of Misc. Metal Parts and Products (> 50 lb/day of Uncontrolled Emissions) – PM10	1. N/A 2. Dry Filters or Waterwash, Properly Maintained

The SMAQMD clearinghouse has one BACT guideline for metal coating operations. The requirements are shown in the table below:

Guidelines	Category & Equipment	Control Technology
336	Coating Metal, ≤ 6,198 lbs VOC/year and facilities ≤ 40,000 lbs VOC/year	Achieved in Practice BACT: - HVLP spray or equivalent application equipment - Enclosed spray gun cleaning system Technology Feasible: Not specified

The SDCAPCD clearinghouse has one BACT guideline for metal parts and products coating operations. The requirements are shown in the table below:

Guideline Source	Equipment	Control Technology
NSR Requirements for BACT Guidance Document, Page 51 (November 2023)	Metal Parts & Products Coating (< 10 gal/day)	Achieved in Practice : - Spray booth equipped with overspray filters. - (A/P) Technologically Feasible & T-BACT: - Not specified

The SJVAPCD BACT clearinghouse contains guideline 4.2.1, which applies to motor vehicle and mobile equipment coating operations. The surface coatings are applied to a variety of automotive products for protective, decorative, or functional purposes. Therefore, the coatings are applied in a similar method to the coatings applied to the metal parts and products coated as a part of this proposed operation. Therefore, the requirements of District BACT guideline 4.2.1 will be considered for this metal parts and products coating operation. The requirements are shown in the table below:

Pollutant	Guideline Source	Emission Unit	Control Technology
PM10	BACT Guideline 4.2.1 (9/30/2025)	Motor Vehicle and Mobile Equipment Coating Operations (<5.0 MMBtu/hr heater burner)	Achieved in Practice: - HVLP application method (transfer efficiency at least 75%) - Spray booth with exhaust filters (98% control)

The SJVAPCD clearinghouse does not currently include a BACT Guideline that applies to metal parts and products coating operations. However, the District formerly had BACT Guideline 4.3.8, which applied to metal product coating operations, specifically for large steel structures. This BACT Guideline 4.3.8 is currently rescinded and the previous requirements are shown below for technology evaluation purposes only:

Pollutant	Guideline Source	Emission Unit	Control Technology
PM10	BACT Guideline 4.3.8 (7/3/2001)	Metal Parts & Products Coating - Large Steel Structures, < 64 lb-VOC/day, Outdoor Coating Operation	Achieved in Practice: - HVLP Gun Technologically Feasible: - Enclosed painting operation with dry filters and the use of HVLP application equipment. - Electrostatic application

Summary of BACT Guidelines:

Based on all SCAQMD BACT guidelines, the use of dry filters, or waterwash, and enclosed spray booth is achieved in practice, a requirement for metal parts and products coating operations.

Based on the above information, the current most stringent BACT requirement for the air-dried metal parts and products coating operations would be:

Achieved-in-Practice:

- Enclosed spray booth with dry filters (98% control efficiency) or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment

Technology Feasible:

- None

Alternate Basic Equipment:

- None

B. Survey of Rules and Regulations:

The requirements of the rules and regulations for metal parts and products coating operations are summarized in the table below:

Agency Rule/Regulation	Requirements
40 CFR Part 63, Subpart HHHHHH, Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	– Management practices to minimize the evaporative emissions of MeCl – All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that is fitted with a type of filter technology that is demonstrated to achieve at least 98 percent capture of paint overspray and meets the requirements of either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of Section 40 CFR 63.11173(e) (a) fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains; however, if a spray booth is fully enclosed and has seals on all doors and other openings and has an automatic pressure balancing system, it may be

	operated at up to, but not more than, 0.05 inches water gauge positive pressure, or b) a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth, or c. for mobile ventilated enclosures that are used to perform spot repairs, they must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray) – All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology

Summary of Applicable Rules and Regulations:

As shown in the above table, the current most stringent Rule requirements for metal parts and products coating operation would be:

- All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that is fitted with a type of filter technology that is demonstrated to achieve at least 98 percent capture of paint overspray and meets the requirements of either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of Section 40 CFR 63.11173(e) (a) fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains; however, if a spray booth is fully enclosed and has seals on all doors and other openings and has an automatic pressure balancing system, it may be operated at up to, but not more than, 0.05 inches water gauge positive pressure, or b) a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth, or c. for mobile ventilated enclosures that are used to perform spot repairs, they must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray)

- High Volume Low-Pressure (HVLP), electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology.

C. Survey of Currently Permitted Operations within SJVAPCD

In order to evaluate what PM10 emission rates are currently being achieved by metal parts and products coating operations permitted within SJVAPCD, permit requirements of several permitted units were reviewed. The permit limits and requirements are summarized in the following table:

Permit	Control Equipment	Industry
C-535-48-1	Enclosed spray booth with dry filters or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment	Wastewater Reclamation Facility
C-1193-3-0	Enclosed spray booth with dry filters or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment	Metal Parts and Products Coating
C-9076-1-0	Enclosed spray booth with dry filters or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment	Plastic Foam Products Manufacturing
S-1633-22-0	Enclosed spray booth with dry filters or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment	Acrolein Production and Repackaging
N-9328-1-1	Enclosed spray booth with dry filters or waterwash (or equivalent) and High Volume Low-Pressure (HVLP) or equivalent spray equipment	Metal Parts and Products Coating

As shown in the previous table, the consistently permitted PM10 control method is the use of coatings compliant with District Rule 4603, and use of HVLP application or equivalent application methods, dry filters, and enclosed spray booth.

Summary of Permit Requirements to Establish the Achieved-in-Practice BACT Standard:

Based on the above information, the current most stringent achieved in practice BACT emissions limitation for metal parts and products coating operations would be:

- HVLP application method (transfer efficiency at least 75%) and enclosed spray booth with exhaust filters

Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options listed in Step 1. All of the emission control options under consideration are technologically feasible.

Step 3 - Rank remaining options by control effectiveness

1. Enclosed spray booth with exhaust filters (98% control) and HVLP application method (transfer efficiency at least 75%).

Step 4 - Cost Effectiveness Analysis

The applicant has proposed to use an enclosed paint spray booth with dry filters and HVLP application equipment, which complies with the PM10 control requirement identified in option 1 above and this option is achieved in practice. Therefore, in accordance with the District BACT Policy, a cost effectiveness analysis is not required.

Step 5 - Select BACT/T-BACT

BACT for PM10 will be the use of a paint spray booth with exhaust filters (98% control) and HVLP application method (transfer efficiency at least 75%). The applicant has proposed to use an enclosed paint spray booth with exhaust filters (98% control) and HVLP application method (transfer efficiency at least 75%). Therefore, BACT requirements are satisfied.

APPENDIX C
Risk Management Review (RMR) and AAQA Summaries

San Joaquin Valley Air Pollution Control District
Risk Management Review and Ambient Air Quality Analysis

To:	Tan Nguyen – Permit Services
From:	Veronica Lumbad – Technical Services
Date:	October 1, 2025
Facility Name:	WELDWAY STEEL FABRICATION
Location:	1230 BRENNAN ROAD, ESCALON
Application #(s):	N-10486-1-0
Project #:	N-1251301

1. Summary

1.1 Risk Management Review (RMR)

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1	217.43	0.24	0.02	8.99E-06	Yes	Yes
Project Totals	217.43	0.24	0.02	8.99E-06		
Facility Totals	> 1	0.24	0.02	8.99E-06		

Notes

1.2 Ambient Air Quality Analysis (AAQA)

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass		Pass		
NO_x	Pass				Pass
SO_x	Pass			Pass	Pass
PM10				Pass	Pass
PM2.5				Pass	Pass

Notes:

1. Results were taken from the attached AAQA Report.
1. The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
2. Modeled PM10 concentrations were below the District SIL for non-fugitive sources of 5 $\mu g/m^3$ for the 24-hour average concentration and 1 $\mu g/m^3$ for the annual concentration.
3. Modeled PM2.5 concentrations were below the District SIL for non-fugitive sources of 1.2 $\mu g/m^3$ for the 24-hour average concentration and 0.13 $\mu g/m^3$ for the annual concentration.

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 1-0

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.
2. Emissions of parachlorobenzotrifluoride (PCBTF, CAS# 98-56-6) from this permit unit shall not exceed 3,246 lb-PCBTF/year. PCBTF emissions from this equipment shall be calculated as the sum of PCBTF emissions from each coating product used (including coatings, thinners, activators, etc.). PCBTF emissions from use of each coating product shall be calculated by the following equation: PCBTF emission (lb/year) = weight percent PCBTF in coating product (%) × density of coating product (lb/gal) × usage of coating product (gal/year). Records of PCBTF emissions shall be updated on a monthly basis, and totaled on a calendar year basis.

T-BACT is required for this unit because of emissions of PCBTF which is a exempt VOC.

2. Project Description

Technical Services received a request to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -1-0: METAL PARTS AND PRODUCTS COATING OPERATION CONSISTING OF A CLOSED PAINT SPRAY BOOTH WITH DRY EXHAUST FILTERS

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the units', the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required.

If a refined assessment is greater than one in a million but less than 20 in a million for carcinogenic impacts (cancer risk) and less than 1.0 for the acute and chronic hazard indices (non-carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For units that exceed a cancer risk of one in a million, Toxic Best Available Control Technology (TBACT) must be implemented.

Air toxics emissions for this project were calculated using the following methods:

- The safety data sheets for the coatings used in the operation were reviewed by CAS# for air toxics. The coating mix ratios, potential usage, weight percentages, and coating density values were entered into the Autobody Shop coating spreadsheet to calculate the emissions.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2018-2022 from Stockton (rural dispersion coefficient selected) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit ID	**Process ID**	**Process Material**	**Process Units**	**Hourly Process Rate**	**Annual Process Rate**
1	1	Color Coat	Gallons	1.6	198
1	2	Primer 1	Gallons	4.7	581
1	2	MDI Emissions	Lbs	2.29E-04	0.64
1	3	Primer 2	Gallons	3.3	408
1	4	Primer 3	Gallons	3.5	433

Point Source Parameters						
Unit ID	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
1	Color Coat	8.84	289	5.75	0.91	Vertical
1	Primer 1	8.84	289	5.75	0.91	Vertical
1	Primer 2	8.84	289	5.75	0.91	Vertical
1	Primer 3	8.84	289	5.75	0.91	Vertical

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-

hour NO_2 standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid, and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

Monitoring Stations				
Pollutant	**Station Name**	**County**	**City**	**Measurement Year**
CO	Stockton – University Park	San Joaquin	Stockton	2023
Nox	Stockton – University Park	San Joaquin	Stockton	2023
PM10	Manteca	San Joaquin		2023
PM10	Manteca	San Joaquin	Manteca	2023
PM2.5	Manteca	San Joaquin		2023
PM2.5	Manteca	San Joaquin	Manteca	2023
SOx	Fresno – Garland	Fresno	Fresno	2023

Technical Services performed modeling for directly emitted criteria pollutants with the emission rates below:

Emission Rates (lbs/hour)						
Unit ID	**Process**	**Nox**	**SOx**	**CO**	**PM10**	**PM2.5**
1	1	0.00	0.00	0.00	24.7	24.7

Emission Rates (lbs/year)						
Unit ID	**Process**	**Nox**	**SOx**	**CO**	**PM10**	**PM2.5**
1	1	0.00	0.00	0.00	307	307

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2018-2022 from Stockton (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Point Source Parameters						
Unit ID	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
1	Metal Coating	8.84	289	5.75	0.91	Vertical

5. Conclusion

5.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. However, the cancer risk for one or more units in this project is greater than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved with Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

5.2 AAQA

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

6. Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. Prioritization score w/ toxic emissions summary

D. Facility Summary

E. AAQA results

APPENDIX D
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly} = PE2_{annual} \div 4$ quarters/year

$PE1_{quarterly} = PE1_{annual} \div 4$ quarters/year

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
NOx	0	0	0
SOx	0	0	0
PM10	28.5	0	28.5
CO	0	0	0
VOC	672	0	672

APPENDIX E
Coating Material Listings

Coating	Manufacturer	Product ID or Code	Mix Ratio	VOC Content of each component (lb/gal)	VOC Content as applied (lb/gal)	Maximum Usage (gal/day)	Maximum Usage (gal/yr)	Maximum VOC per Day (lbs)	Maximum VOC per Year (lbs)	Maximum VOC per Year (tons)
Hardner	Sherwin Williams	Macropoxy 646 B58V600	1%/gal	1.63	1.63	8	99	13.04	161.37	0.08
Fast Cure Expoxy	Sherwin Williams	Macropoxy 646 B58W610	1%/gal	2.11	2.11	8	99	16.88	208.89	0.10
Primer	TNEMEC	Series 115	5%/gal	1.09	1.09	34	420	37.06	457.80	0.23
Primer	TNEMEC	Series 115	1%/gal	1.09	1.09	35	433	38.15	471.97	0.24
Primer	TNEMEC	Series 94-H2O	15%/gal	0.74	0.74	33	408	24.42	301.92	0.15
Primer	Sherwin Williams	B50AS200	1%/gal	1.87	2.08	47	581	97.76	1,208.48	0.60
							Total		2,810.43	1.41

Coating	Manufacturer	Product ID or Code	Mix Ratio	VOC Content of each component (lb/gal)	VOC Content as applied (lb/gal)	Maximum Usage (gal/day)	Maximum Usage (gal/yr)	Maximum VOC per Day (lbs)	Maximum VOC per Year (lbs)	Maximum VOC per Year (tons)
Hardner	Sherwin Williams	Macropoxy 646 B58V600	1%/gal	1.63	1.63	8	99	13.04	161.37	0.08
Fast Cure Expoxy	Sherwin Williams	Macropoxy 646 B58W610	1%/gal	2.11	2.11	8	99	16.88	208.89	0.10
Primer	TNEMEC	Series 115	5%/gal	1.09	1.09	34	420	37.06	457.80	0.23
Primer	TNEMEC	Series 115	1%/gal	1.09	1.09	35	433	38.15	471.97	0.24
Primer	TNEMEC	Series 94-H2O	15%/gal	0.74	0.74	33	408	24.42	301.92	0.15
Primer	Sherwin Williams	B50AS200	1%/gal	1.87	2.08	47	581	97.76	1,208.48	0.60
							Total		2,810.43	1.41

APPENDIX F
Dry Exhaust Filter Specification

PAINT ARRESTANCE FILTER TEST REPORT

Spray Removal Efficiency & Paint Holding Capacity

Supplier:	**Rohner Finishing Systems**
Filter No:	**COFL-EFBAFGS-48-300-02-I**
Report#./Test#	**R 660/T 760**
Report Date:	**March 16, 2005**

Test Information

FILTER DESCRIPTION:

White/Green highloft fiberglass

PAINT DESCRIPTION:

High Solids Baking Enamel (S.W. #1 Permaclad 2400, red)

PAINT SPRAY METHOD:

Conventional Air Gun at 40 PSI

SPRAY FEED RATE:

137 gr./min. **130** cc./min.

AIR VELOCITY:

150 FPM

Test Results

INITIAL PRESSURE DROP of Clean Test Filter

0.02 in. water

FINAL PRESSURE DROP of Loaded Test Filter

0.14 in. water

WEIGHT GAIN on TEST FILTER & Test Frame Trough

3925 grams

PAINT HOLDING CAPACITY of TEST FILTER

1073 grams = **2.4** lbs.

PAINT RUN-OFF

2852 grams

WEIGHT GAIN on FINAL FILTER

47.1 grams = **PENETRATION**

AVERAGE REMOVAL EFFICIENCY of TEST FILTER

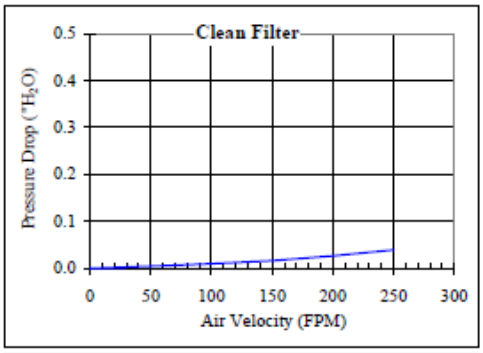
98.81 %

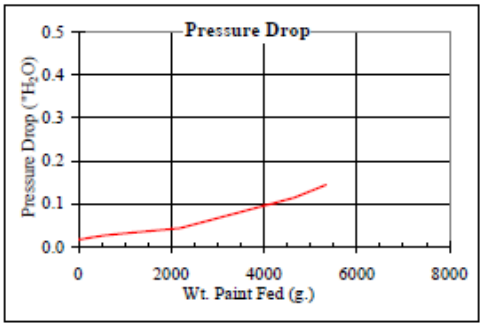
Note:the procedure used to demonstrate filter efficiency is consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992"

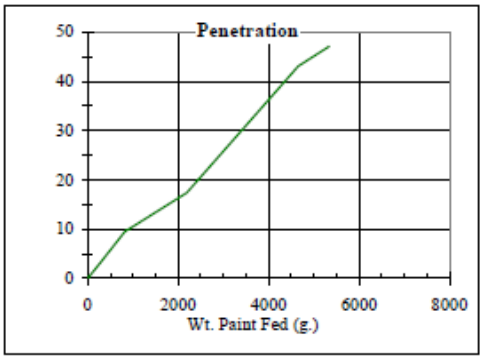
Test Engineer: Todd Kruger

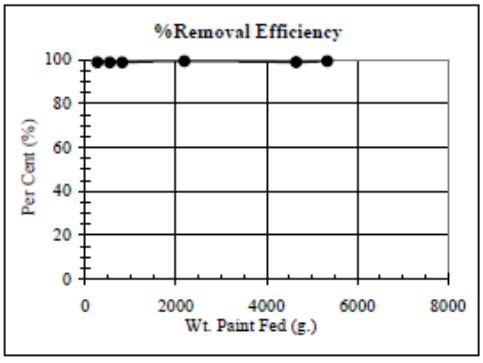
Supervising Engineer: K. C. Kwok, Ph.D.

COMPLIANT WITH 40 CFR PART 63 SUBPART 6H NESHAP









APPENDIX G
Public Notice Comments and District Responses

District Response to Public Comments

For clarity and completeness, the District has organized its responses by issue area rather than by the numbering used in the comment letter. The comment letter raises multiple related concerns under common themes, and grouping responses by topic ensures that each substantive issue is addressed fully and coherently. All comments received have been reviewed and considered, and the District's responses are provided below.

1. Delegation and Applicability of NESHAP Subpart HHHHHH

Comment Summary:
The commenter asserts that the District has authority to implement and enforce 40 CFR Part 63, Subpart HHHHHH for area sources, or alternatively that prior EPA actions provide such authority, and questions why Subpart HHHHHH requirements were not included in the proposed permit.

District Response:
Delegation of federal authority to implement and enforce National Emission Standards for Hazardous Air Pollutants (NESHAP) under Clean Air Act (CAA) section 112(l) is not automatic and is not self-executing. Delegation is effective only after U.S. EPA approval and codification in 40 CFR §63.99. For area sources of hazardous air pollutants, the District's delegated authority is limited to those NESHAP subparts that are both incorporated by reference into District Rule 4002 and approved by EPA.

As reflected in 40 CFR §63.99(a)(5)(i)(B)(9), the District has been delegated authority only for those Part 63 standards promulgated and incorporated by reference in Rule 4002 as amended on May 20, 2004. Subpart HHHHHH is not among the delegated standards. The District cannot unilaterally implement or enforce Subpart HHHHHH absent EPA approval and codification in §63.99.

The commenter cites Federal Register language from March 19, 2011 regarding a "one-time demonstration" option under CAA section 112(l). That language describes an optional procedural mechanism whereby a state or local agency may submit a one-time demonstration to EPA establishing that it has adequate authority and resources to implement section 112 standards. Such a demonstration must be affirmatively submitted to EPA, approved by EPA, and codified in §63.99. The District has not submitted, and EPA has not approved, a one-time demonstration granting blanket authority over all section 112 standards. Accordingly, no such blanket delegation exists.

The commenter also notes that District permit templates reference Subpart HHHHHH. Use of informational templates does not constitute delegation of authority or create enforceable permit obligations. Templates may identify potentially applicable federal requirements for which EPA retains direct implementation and enforcement authority.

The commenter further suggests that the District should request delegation of 40 CFR Part 63, Subpart HHHHHH in order to evaluate or enforce those requirements for this project. Decisions regarding whether to seek delegation of additional federal standards under Clean Air Act section 112(l) are programmatic in nature and involve coordination with U.S. EPA, amendments to District rules, and formal EPA approval and codification in 40 CFR §63.99. Such decisions are

not part of the permit evaluation for an individual project and are not required to ensure compliance with applicable requirements. The District's responsibility in this permit action is to apply existing delegated authority and applicable federal, state, and District regulations, which it has done. EPA retains direct implementation and enforcement authority for Subpart HHHHHH where applicable.

Finally, Subpart HHHHHH is not applicable to the proposed operation because the coatings proposed do not contain the target hazardous air pollutants regulated by that subpart (chromium, lead, manganese, nickel, or cadmium compounds). The permit includes enforceable conditions prohibiting the use of coatings containing those compounds. Accordingly, Subpart HHHHHH does not apply to the project as proposed.

2. Role and Maintenance of the District BACT Clearinghouse

Comment Summary:
The commenter asserts that the District's BACT Clearinghouse is not adequately maintained, that existing metal coating BACT guidelines have been rescinded but could apply depending on how source categories are defined, and that the absence of an updated guideline calls into question application completeness and permit issuance.

District Response:
The BACT Clearinghouse is a streamlining and informational tool intended to document and organize BACT determinations for common classes and categories of sources. While the District's BACT policy expresses an intent to actively maintain the Clearinghouse, the existence or availability of a guideline is not a regulatory prerequisite to permit issuance. BACT is determined on a case-by-case basis pursuant to District policy and applicable law.

Many BACT guidelines referenced by the commenter have been rescinded because they no longer reflect current technology, regulatory requirements, or other technical assumptions used in BACT evaluations. Rescinded guidelines are not relied upon for permitting decisions and are not considered applicable BACT determinations.

Where no active guideline applies, or where existing guidelines are outdated or rescinded, the District conducts a project-specific BACT determination using the same technical framework employed for guideline development. Completion or update of a BACT guideline is not required for an application to be deemed complete, nor is it required prior to permit issuance.

3. PM10 BACT Determination

3.1 BACT Framework and "Achieved in Practice" Criteria

Comment Summary:
The commenter asserts that the District's BACT analysis does not adequately account for technology transfer and achieved-in-practice controls with higher PM10 control efficiencies.

District Response:
Under the District's BACT policy, a control technology may be deemed "achieved in practice" only where it has been implemented at facilities that are comparable in size, design, operating characteristics, and class or category of source, and where supporting infrastructure and operating conditions are substantially similar. While the policy requires consideration of technology transfer from similar source categories, it does not require adoption of controls that are not demonstrated to be achieved in practice for comparable sources. The availability of equipment, vendor claims, or use of a technology in unrelated source categories does not establish achieved-in-practice status.

3.2 PM10 Control Technologies Evaluated

Comment Summary:
The commenter asserts that PM10 control technologies achieving 99 percent or greater efficiency, including HEPA and multi-stage dry filtration systems, are widely used and should be evaluated as achieved-in-practice controls for spray coating operations.

District Response:
The District evaluated a range of PM10 control options, including conventional dry spray booth filters, higher-efficiency dry filters, multi-stage filtration systems, and HEPA filtration. The evaluation considered control efficiency, applicability to the proposed class and category of source, operational compatibility, and safety considerations. The District is not aware of similarly sized metal parts and products coating operations employing HEPA filtration for PM10 control outside of a narrow class of facilities applying specialized chromium-containing coatings. For example, South Coast AQMD has permitted HEPA filtration under Rule 1469.1 for chromium-containing coating operations, which present fundamentally different toxic and regulatory considerations. The proposed operation does not utilize such coatings and is therefore not comparable. Accordingly, HEPA filtration and similar advanced systems were not determined to be achieved in practice for the proposed operation.

3.3 Technological Feasibility and Cost Effectiveness of HEPA Filtration

Comment Summary:
The commenter asserts that higher-efficiency PM10 controls, including HEPA filtration, should be required and that engineering constraints such as airflow and ducting can be addressed through system design.

District Response:
Although HEPA filtration is not achieved in practice for this class and category of source, the District determined that it is technologically feasible and therefore evaluated it for cost effectiveness.

Conventional spray booths are not designed to accommodate HEPA filters due to significantly higher pressure drop and airflow resistance. Retrofitting such systems would impair required air changes, compromise coating quality, increase fire and ignition risks, and conflict with applicable safety standards (e.g., NFPA 33 and OSHA regulations) unless the entire system were

specifically designed for HEPA use. As a result, installation of HEPA filtration would require a fully redesigned spray booth.
Based on cost information from South Coast AQMD, the capital cost of a spray booth designed for HEPA filtration is approximately $56,000, with an annualized cost of approximately $7,610 per year. For the proposed operation, PM10 emissions using dry spray booth filters are approximately 281 pounds per year. HEPA filtration would reduce PM10 emissions to approximately 2 pounds per year, yielding a cost effectiveness of approximately $54,500 per ton of PM10 reduced. This exceeds the District's PM10 cost-effectiveness threshold of $13,700 per ton and does not include additional maintenance and operational costs. Accordingly, HEPA filtration is not cost effective and does not constitute BACT.

3.4 Revised PM10 Control Efficiency Determination

Comment Summary:
The commenter disagrees with the District's initial PM10 control efficiency determination and asserts that dry spray booth filters should be required to meet a higher certified control efficiency.

District Response:
During preparation of the initial draft engineering evaluation, the District identified dry spray booth filters rated at 95 percent control efficiency as representative of controls achieved in practice. In response to information received during the public comment process, the District obtained additional vendor test data for the specific filters proposed for this project and reviewed recently updated BACT determinations for similar source categories.

Based on this additional information, the District determined that dry spray booth filters capable of achieving 98 percent PM10 control efficiency have been achieved in practice for this class and category of source. The engineering evaluation, emission calculations, and top-down BACT analysis have been revised accordingly. The District's evaluation regarding higher-efficiency control options, including HEPA filtration, remain unchanged. The requirement for dry spray booth filters with a minimum PM10 control efficiency of 98 percent represents the most stringent control that is achieved in practice or technologically feasible and cost effective and therefore constitutes BACT.

3.5 Federal and Other District Requirements

Comment Summary:
The commenter asserts that federal requirements and other California air district practices require a minimum PM10 control efficiency of at least 98 percent and that this requirement should be reflected in the District's BACT analysis.

District Response:
The commenter asserts that federal regulations mandate a minimum PM10 control efficiency of 98 percent. As discussed above and in Section 1, 40 CFR Part 63, Subpart HHHHHH is not applicable to the proposed operation and does not establish a mandatory PM10 control efficiency for this project. A top-down BACT analysis considers applicable federal and state requirements but does not require adoption of controls that are not applicable or that do not meet the achieved-in-practice and cost-effectiveness criteria.

Notwithstanding, as described in Section 3.4 above, based on additional project-specific information, the District determined that dry spray booth filters capable of achieving a 98 percent PM10 control efficiency have been achieved in practice for this class and category of source.

4. VOC BACT Determination

Comment Summary:
The commenter disagrees with the District's determination that VOC control technologies such as carbon adsorption are not achieved in practice for the proposed operation.

District Response:
The District evaluated VOC control options, including carbon adsorption and thermal oxidation. The District is not aware of similarly sized metal parts and products coating operations employing these controls under comparable operating conditions. Accordingly, these technologies were not determined to be achieved in practice for the proposed class and category of source.

Because these technologies were not achieved in practice, a cost-effectiveness analysis was required and performed. Based on that analysis, carbon adsorption and thermal oxidation were not found to be cost effective and therefore do not constitute BACT.

5. Supporting Documentation, Public Notice, and Permit Conditions

5.1 HVLP Spray Equipment

Comment Summary:
The commenter requests that documentation demonstrating compliance with HVLP spray equipment requirements be included as an appendix.

District Response:
District Rule 4603 establishes requirements for HVLP spray equipment, including pressure limits, manufacturer markings, and operation in accordance with manufacturer recommendations. The applicant has proposed to use HVLP spray equipment expected to comply with Rule 4603. District compliance staff will verify compliance during inspections.

5.2 PM10 Filter Certification

Comment Summary:
The commenter requests that documentation certifying PM10 control efficiency be included as an appendix.

District Response:
Vendor test report data for the proposed spray booth filters has been included as an appendix to the revised engineering evaluation. This documentation supports the revised PM10 BACT determination and corresponding permit conditions.

5.3 Public Notice and Health Risk Assessment

Comment Summary:
The commenter asserts that health risk assessment and risk management review attachments referenced in the engineering evaluation should be included in the public notice.

District Response:
Public notice requirements require disclosure of the proposed action and the basis for the District's preliminary decision, but do not require inclusion of all underlying technical working documents. The District conducted a Health Risk Assessment consistent with Office of Environmental Health Hazard Assessment guidelines and included a summary of the methodology and results in the engineering evaluation. Supporting technical memoranda are part of the administrative record and are available for public review upon request.

5.4 Visible Emissions and Policy SSP 1005

Comment Summary:
The commenter questions whether District Policy SSP 1005 should apply to the proposed operation due to the use of dry PM control devices.

District Policy SSP 1005 applies to baghouse dust collectors, which are multi-bag filtration systems with self-cleaning mechanisms. The proposed operation utilizes dry spray booth exhaust filters integrated into the booth and does not employ a baghouse. Accordingly, SSP 1005 does not apply.