



This form must be accompanied by a completed Application for a Permit to Construct/Operate -Form 400A, Form CEQA, Plot Plan and Stack Form

Permit to be issued to (Business name of operator to appear on permit):					
Street location where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site):					
Section A: EQUIPMENT DESCRIPTION					
Powder Coating System	Manufacturer:		Model:		
Cleaning System	Cleaning Solvent used (attach Material Safety Data Sheet):				
	Solvent usage:	gallons/day	gallons/month	% by weight of VOC	Density (lbs/gal)
Curing and Drying Ovens (if available)	Drying Oven:	Make:	Model:		
		Btu rating:	Btu/hr (if greater than 2,000,000 Btu/hr, a separate permit is needed for the oven - complete another 400A and the supplemental form for Ovens)		
		Fuel type:	Natural gas	Propane	Other
	Curing Oven:	Make:	Model:		
	Btu rating:	Btu/hr (if greater than 2,000,000 Btu/hr, a separate permit is needed for the oven or cures more than 30 pounds a day or 660 pounds a month of powder coating - complete another 400A and the supplemental form for Ovens.)			
	Fuel type:	Natural gas	Propane	Other	
Collection/ Recycling System	Is a cyclone present?	Yes	No		
Control System	Select One:				
	Pocket filters: Number of filters	Size of each filters:	Width	x Length	x Depth
	Bags filter: Number of filters	Size of each filters:	Width	x Length	x Depth
	Baghouse ¹				
	Cartridge type dust collector ¹				
The Control System Indicated Includes HEPA Filters ¹					
	Manometer or draft gauge installed?	Yes	No	Pressure drop across clean filters	inches of water

¹ A separate application is needed for this control equipment. Please complete another Form 400A and Form E-xx.

Section B: PROCESS DESCRIPTION	
Process weight (pounds of powder used)	≤ 37 pounds/day - bags filters or pocket filters are needed
	> 37 pounds/day - cartridge-type dust collector or baghouse is needed
	Indicate actual amount used:
	Normal operation: pounds/day Maximum operation: pounds/day
Gun cleaning	Method used for cleaning gun:
	Solvent usage:
	gallons/day gallons/month % by weight of VOC Density (lbs/gal)
Type of article/material sprayed	Description:
Operating Schedule	Normal: hours/day days/week weeks/yr.
	Maximum: hours/day days/week weeks/yr.

Applicant Certification Statement		
(I hereby certify that all information contained herein and information submitted with this application is true and correct)		
SIGNATURE OF PREPARER:		TITLE OF PREPARER:
CONTACT PERSON FOR INFORMATION ON THIS EQUIPMENT :	CONTACT PERSON'S TELEPHONE NUMBER	DATE SIGNED:

CONFIDENTIAL INFORMATION

Under the California Public Records Act, all information in your permit application will be considered a matter of public record and may be disclosed to a third party. If you wish to keep certain items as confidential, please complete the following steps:

(a) Make a copy of any page containing confidential information blanked out. Label this page "public copy."
 (b) Label the original page "confidential." Circle all confidential items on the page.
 (c) Prepare a written justification for the confidentiality of each confidential item. Append this to the confidential copy.

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FORM 400-E-17a

Powder Coating Operation Worksheet

I. Calculation for Ovens

Emission Factor

	Natural Gas			Propane				
	lb/mmcf	Emission (lb/hr)	30 Day Avg.	Yearly Avg.	lb/1000 gal	Emission (lb/hr)	30 Day Avg.	Yearly Avg.
BTU Rating (mmbtu/hr):								
Conversion Factor:	ROG				ROG			
BACT (ppm):	COG				COG			
Fuel Usage (mmcf/hr):	PM				PM			
NOx lb/(ppm-mmBtu):	SOx				SOx			
Nox lb/hr:					NOx			

Separate Application Is Required Is Not Required

II. Emission Calculations From Powder Coating

Particulate Emissions (PM10)

$$\text{Daily emissions} = \text{pound of powder sprayed per day} \times (1 - TE) \times (1 - CE) =$$
 where TE = transfer efficiency = 0.65 for electrostatic guns(default)
 CE = Control Efficiency of control device
 = 0.99 for dust collector - baghouse/cartridge
 = 0.8 for standard spray booth with bag type filter

$$\text{30 day average emission} = (\text{daily emissions} \times \text{number of days of operation per month}) / 30 =$$

$$\text{Yearly emissions, tons/year} = \text{monthly emissions} (\text{daily emissions} \times \text{number of days of operation per month}) \times 12 / 2000 =$$

III. VOC Emissions

Powder Coating

$$\text{Daily emissions} = 0.01 \times \text{pounds of powder sprayed per day} =$$
 Assumes 1% by weight of powder sprayed is volatized

$$\text{30 day average emission} = (\text{daily emissions} \times \text{number of days of operation per month}) / 30 =$$

$$\text{Yearly emissions, tons/year} = \text{monthly emissions} \times 12 / 2000 =$$

$$= (\text{daily emissions} \times \text{number of days of operation per month}) \times 12 / 2000 =$$

From Solvent usage, daily emissions

Parts Cleaning

$$\text{Loss per day} = \% \text{ by weight of VOC} \times \text{gallons/day} \times \text{density} =$$

$$\text{30 day average emission} = (\text{daily emissions} \times \text{number of days of operation per month}) / 30 =$$

$$\text{Yearly emissions, tons/year} = \text{monthly emissions} (\text{daily emissions} \times \text{number of days of operation per month}) \times 12 / 2000 =$$

Gun Cleaning

$$\text{Loss per day} = \% \text{ by weight of VOC} \times \text{gallons/day} \times \text{density} =$$

$$\text{30 day average emission} = (\text{daily emissions} \times \text{number of days of operation per month}) / 30 =$$

$$\text{Yearly emissions, tons/year} = \text{monthly emissions} (\text{daily emissions} \times \text{number of days of operation per month}) \times 12 / 2000 =$$

If a separate permit is required for an oven, calculate oven emissions

SAMPLE Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
- 3) THIS SPRAY BOOTH SHALL NOT BE OPERATED UNLESS ALL EXHAUST AIR PASSES THROUGH FILTER MEDIA AT LEAST 2 INCHES THICK.
- 4) A GAUGE SHALL BE INSTALLED AND MAINTAINED TO INDICATE, IN INCHES OF WATER, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE EXHAUST FILTERS. IN OPERATION, THE PRESSURE DIFFERENTIAL SHALL NOT EXCEED 0.25 INCH OF WATER.
- 5) THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH RULES 1107 AND 1171.
- 6) MATERIAL SAFETY DATA SHEETS FOR ALL COATINGS AND SOLVENTS USED AT THIS FACILITY SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
- 7) WET COATING SHALL NOT BE APPLIED IN THIS EQUIPMENT.
- 8) THE OPERATOR SHALL COMPLY WITH RULE 109 (RECORDKEEPING FOR VOLATILE ORGANIC COMPOUND EMISSIONS).
- 9) IN ADDITION TO THE REQUIREMENTS OF RULE 109, THE OPERATOR SHALL KEEP ADEQUATE RECORDS FOR THIS FACILITY TO VERIFY CALENDAR MONTHLY VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS IN POUNDS AND THE VOC CONTENT OF EACH MATERIAL AS APPLIED (INCLUDING WATER AND EXEMPT COMPOUNDS). ALL RECORDS SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT.
- 10) THE VOC EMISSIONS FROM THE USE OF ANY POWDER COATINGS SHALL BE CALCULATED USING THE EMISSION FACTOR DETERMINED PURSUANT TO SCAQMD METHOD 316C. IN CASE NO LABORATORY TESTED EMISSION FACTOR IS AVAILABLE, THEN A FACTOR OF 0.01 POUND OF VOC PER POUND OF POWDER COATING SPRAYED SHALL BE USED.
- 11) **THE TOTAL QUANTITY OF POWDER COATINGS USED IN THIS EQUIPMENT SHALL NOT EXCEED POUNDS IN ANY ONE DAY.**
- 12) THE TOTAL QUANTITY OF VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS FROM ALL PERMITTED EQUIPMENT AND ASSOCIATED OPERATIONS AT THIS FACILITY SHALL NOT EXCEED 667 POUNDS IN ANY ONE CALENDAR MONTH. ASSOCIATED OPERATIONS INCLUDE, BUT ARE NOT LIMITED TO SURFACE PREPARATION, EQUIPMENT CLEANUP, AND THE APPLICATION OF ANY OTHER MATERIALS TO PARTS THAT ARE SUBSEQUENTLY PROCESSED IN THE PERMITTED EQUIPMENT.

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- 13) WITHIN 14 CALENDAR DAYS AFTER THE END OF EACH MONTH, THE OPERATOR SHALL TOTAL AND RECORD VOC EMISSIONS FOR THE MONTH FROM ALL EQUIPMENT COVERED BY THE MONTHLY LIMIT. THE RECORD SHALL INCLUDE ANY PROCEDURES USED TO ACCOUNT FOR CONTROL DEVICE EFFICIENCIES AND/OR WASTE DISPOSAL. IT SHALL BE SIGNED AND CERTIFIED FOR ACCURACY BY THE HIGHEST RANKING INDIVIDUAL RESPONSIBLE FOR COMPLIANCE WITH DISTRICT RULES.
- 14) THE OPERATOR SHALL RETAIN FOR 36 MONTHS ALL PURCHASE INVOICES FOR ALL VOC-CONTAINING MATERIAL USED OR STORED AT THE FACILITY, AND ALL WASTE MANIFESTS FOR ALL WASTE VOC-CONTAINING MATERIAL REMOVED FROM THE FACILITY.
- 15) THE OPERATOR SHALL MAINTAIN A SINGLE LIST THAT INCLUDES ONLY THE NAME AND ADDRESS OF EACH PERSON FROM WHOM THE FACILITY ACQUIRED VOC-CONTAINING MATERIAL REGULATED BY THE DISTRICT THAT WAS USED OR STORED AT THE FACILITY DURING THE PRECEDING 12 MONTHS.
- 16) MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE 1 WITH AN EFFECTIVE DATE LISTING OF AUGUST 18, 2000.
- 17) ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR 36 MONTHS, AND SHALL BE MADE AVAILABLE TO ANY DISTRICT REPRESENTATIVE UPON REQUEST.