

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	Page	1 of 3
<i>ENGINEERING &amp; COMPLIANCE</i>	A/N	444081
APPLICATION PROCESSING AND CALCULATIONS	Processed By	KH
	Checked By	
	Date	7/19/06

Applicant's Name: Prime Wheel  
Mailing Address: 17705 S. Main  
Gardena, CA 90746  
Equipment Location: 17704 Broadway St., Carson

Equipment Description:  
APPLICATION NO. 444081:

SPRAY BOOTH NO. 3, POWDER COATING, DRY FILTER TYPE, IMF, 8' - 2"W. x 13' - 1"L. x 9' - 10"H., WITH ONE 7.5-HP BLOWER, 6 CARTRIDGE TYPE FILTERS, 1,356 SQ. FT. TOTAL FILTERING AREA, AND TWO FINAL FILTERS.

HISTORY:

Application was received on: 5/26/05  
Equipment installed: Yes  
Violations recorded: None

The application filing was for change of permit condition to increase the powder usage.

Powder Increase	
From	To
lbs/month	lbs/month
6,000	12,000

Previous permit: F55362 (A/N 404511)

PROCESS DESCRIPTION

The equipment is for powder coating aluminum wheels.

CALCULATIONS:

Given:

Overspray: (Assumed) 35%  
Exhaust flow rate: 2,700 cfm  
Powder rate: 16.67 lb/hr  
Powder specific gravity: 1.15  
PM<sub>10</sub> in total PM: 50%  
Control efficiencies:  
PM 99%  
VOC 0%  
VOC content: by weight 1.2% (Super Clean Materials)  
lb/gal 0.11

Operating Schedule:

hrs/day 24  
days/wk 7  
weeks/yr 52

Computations:

	VOC		PM		PM10	
	Uncontr.	Contr.	Uncontr.	Contr.	Uncontr.	Contr.
lb/hr	0.20	0.20	5.83	0.06	2.92	0.03
lb/day	5	5	140	1	70	1
lb/yr		1,747.20				254.80

Grain loading: 0.0025 gr/ft<sup>3</sup>  
Powder limit: 12,000 lb/month

VOC contained in powder coatings used:

144 lb/month

NSR:

	VOC	NOx	SOx	CO	PM10
Existing	46	28	0	124	15
A/N 306209	0	0	0	0	0
A/N 404507	1	11	0	22	3
A/N 404511	0	0	0	0	0
A/N 444081	5	0	0	0	1
PTE	52	39	0	146	19
ERC required	7	13	0	0	0

ERC requirements:

	VOC	NOx		
A/N 404507	1	13		
A/N 444081	6	0		
Total	7	13		
Available*	14	7	*AQ004707	14 lbs VOC
Additional	0	6	*AQ005495	7 lbs NOx

**RULES EVALUATION**

**Rule 212:**

This is not a significant project as defined by this rule. No public notice is required (The nearest school is 2112 feet from the facility).

**Rule 401:**

No visible emissions are expected from this type of equipment. Compliance is expected.

**Rule 402:**

Nuisance problems due to the operation of this equipment are unlikely.

**Rule 404:**

Flow rate, cfm	Concentration, gr/cf		Compliance
	Rule 404 Limit	Calculated	
2,700	0.129	0.0025	Yes

**Rule 405:**

Process Weight, lb/hr	Emission Rate, lb/hr		Compliance
	Rule 405 Limit	Calculated	
17	0.99	0.06	Yes

**Rule 1107:**

Coating VOC content (less water less exempt compounds)

Allowed, lb/gal	Actual, lb/gal	Compliance
3.50	0.11	Yes

**REGULATION XIII - New Source Review**

**BACT:**

**PM10:**

Dry filter is used. Complies.

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VOC:

Super Clean Materials are used. Complies.

Compliance determination

Modeling:

The emissions are less than the amounts in Table A-1 of Rule 1303. No further analysis is required. Complies.

Offsets:

VOC:  
The facility PTE is more than the amounts in Table A of Rule 1304. External offsets are required.

PM10:

The facility PTE is less than the amounts in Table A of Rule 1304. No offsets are required.

DISCUSSIONS

VOC ERC are required.

The company holds 14 lbs of VOC ERC (AQ004707), enough to offset the VOC emission increase.

Based on the information submitted with the application and the above evaluation, it is determined that the equipment operates in compliance with all the applicable rules and regulations of the District.

RECOMMENDATIONS

Hold Permit to Operate pending EPA review.