

PERMIT TO OPERATE EVALUATION

Applicant name: Prime Wheel (FACILITY ID# 105903)

Mailing address: 17705 Main St.
Gardena, Ca

Equipment Location: 17704 S. Broadway St.
Carson, Ca

EQUIPMENT DESCRIPTIONS:

Application No. 476329

SPRAY TUNNEL, ALUMINUM WHEELS SURFACE PREP, IPE, 7' - 3"W. x 163' - 4"L. x 12' - 10"H., WITH AN OVERHEAD CONVEYOR, AND TWO EXHAUST BLOWERS, 3 HP TOTAL, CONSISTING OF:

1. DEGREASING STAGE NO. 1, (**D97**) ALKALINE SOLUTION, WITH A 900 GALLONS CAPACITY STORAGE SUMP, WITH ONE 7.5-HP RECIRCULATION PUMP, 97 SPRAY NOZZLES, AND ONE 1,500,000 BTU/HR MAXON MODEL 8-15 TUBE-O-FLAME NATURAL GAS-FIRED BURNER.
2. DEGREASING STAGE NO. 2, (**D101**) ALKALINE SOLUTION, WITH A 1,900 GALLONS CAPACITY STORAGE SUMP, WITH ONE 20-HP RECIRCULATION PUMP, 210 SPRAY NOZZLES, AND ONE 3,800,000 BTU/HR MAXON MODEL 12-38 TUBE-O-FLAME NATURAL GAS-FIRED BURNER.
3. DEOXIDATION STAGE NO. 5, (**D105**) ACID SOLUTION, WITH A 1,900 GALLONS CAPACITY STORAGE SUMP, WITH ONE 15-HP RECIRCULATION PUMP, 188 SPRAY NOZZLES, UNHEATED
4. ACID PREPARATION STAGE NO. 7, (**D133**) ACID SOLUTION WITH A 900 GALLONS CAPACITY STORAGE SUMP, WITH ONE 15-HP RECIRCULATION PUMP, 90 SPRAY NOZZLES, UNHEATED
5. PAINT PREPARATION STAGE NO. 9, (**D136**) ACID SOLUTION WITH A 900 GALLONS CAPACITY STORAGE SUMP, WITH ONE 15-HP RECIRCULATION PUMP, 120 SPRAY NOZZLES, UNHEATED
6. ASSOCIATED UNHEATED WATER RINSE STAGES.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 2 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

Application No. 483453

HEAT TREATING FURNACE, (D75) SECO/WARWICK, 12'-0" W. X 109'-4" L X 13'-4"H, WITH 9 NATURAL GAS FIRED LOW-NOX BURNERS, EACH NORTH AMERICAN, MODEL NO. 4422, RATED AT 2,475,000 BTU PER HOUR TOTAL, AND FOUR RECIRCULATING FANS, 210 HP TOTAL.

Application No. 478236

RECLAIM/Title V Minor Permit Revision

Application No. 483454

RECLAIM/Title V De minimis Significant Permit Revision.

PERMIT CONDITIONS: (SEE SAMPLE PERMIT)

BACKGROUND:

PRIME WHEEL manufactures aftermarket automobile wheels and original equipment wheels. It is a Title V and Reclaim Facility (Facility ID# 105903).

Application No. 476329 was filed on 12/1/2007 for a modification of an existing spray tunnel process line (A/N 404508) to remove the burner at device 105 and the burner at device 109. The total heat input decreased by 6.3 MMBTU/hr, from a total of 11.6 MMBTU/hr to a total of 5.3 MMBTU/hr. There was no request to decrease the monthly natural gas fuel usage limit. The application also requested to change the chromic acid solution at device 109 to DI water and therefore it was removed from the permit. Further, the applicant requested to change the chemical solutions in two existing unheated tanks at stages 7 and 9 therefore Devices 133 and 136 were added. Device 133 is the unheated tank at Stage #7 processing a trade secret substance with no VOC or hazardous ingredients (Gardobond x 4707 A). Device 136 is the unheated tank at Stage #9 processing Phosphonic Acid also known as Phosphorous Acid, Ortho- (Gardobond x 4661). In addition, the facility requested to change their Title V permit description to indicate tank capacity values instead of tank size values. We proposed to add the tank capacity values and keep the tank size values on the permit. Also, the facility requested to change their permit description to indicate the correct number of spray nozzles at stages 1 and 5.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 3 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

Application No. 478236 is the associated application filed on 02/19/2008 for a RECLAIM/Title V Minor Permit Revision.

Application No. 483453 was filed on 06/03/2008 for a modification of an existing Heat Treatment Oven (A/N 306221) replacing 5 total burners with 9 total burners, North American Model No. 4422-5 and 4422-6 which have a total lower heat input rating. The modification decreased the total heat input by 2.6 MMBTU/hr, from a total of 5.075 MMBTU/hr to a total of 2.475 MMBTU/hr. The facility requested not to decrease the monthly natural gas fuel usage limit.

Application No. 483454 is the associated application filed on 06/03/2008 for a RECLAIM/Title V De minimis Significant Permit Revision.

PROCESS DESCRIPTION:

The wheels at this facility are manufactured from aluminum which are re-melted from clean aluminum ingots or sows in a dry hearth surface or in a second furnace (chip furnace). The control of the particulate and hydrocarbon emissions from these operations are part of the premelt system. Once the wheels are cast, they are loaded on racks and pass through the heat treatment oven, quench tank, aging oven, and a cooling section. The wheels are then machined and are placed on an overhead conveyor to be cleaned and treated in a spray tunnel process line. After exit from the tunnel they are dried in a dry-off oven. The wheels are then placed on another conveyor to pass through a spray booth to be painted using two dry electrostatic powder booths plus one wet coating booth. Some wheels are fully painted in all three booths with primer, liquid paint and clear coat. Others may be painted only with clear coat in spray booth #3. The wheels are transferred to an oven to cure so that the powder coating is allowed to flow and form a layer. Also, the wet coating exposed to heat creates a hardened texture.

EMMISSION EVALUATION:

APPLICATION NO. 476329

PREVIOUS EMISSIONS

Devices: D97, D101, D105, D109

Fuel: Natural Gas

Operating Schedule: 24 hrs/day, 7 days/week, 52 weeks/year

Heat Input Rating: MM Btu/hr: 11.6

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 4 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

Fuel Usage: 720,000 cubic feet/month , 24,000 cubic feet/day, 1,000 cubic feet/hour

Previous Application Calculations:

MAX EMISSIONS

ROG: .08 lbs/hr

NOx: .84 lbs/hr

SOx: .009 lbs/hr

CO: .39 lbs/hr

PM10 : .08 lbs/hr

30 DAY AVERAGE

ROG: 0 lbs/day

NOx: 1.84 lbs/day

SOx: 0 lbs/yr

CO: 1 lb/day

PM10 : 0 lbs/day

NEW EMISSIONS:

See Excel Spreadsheet D97,101- Attachment 1

Devices: D97, D101

Fuel: Natural Gas

Operating Schedule: 24 hrs/day, 7 days/week, 52 weeks/year

Heat Input Rating, MM Btu/hr: 5.3

Fuel Usage: 720,000 cubic feet/month , 24,000 cubic feet/day, 1,000 cubic feet/hour

MAX EMISSIONS

ROG : .04 lbs/hr

NOx : .38 lbs/hr

SOx : .003 lbs/hr

CO : .18 lbs/hr

PM 10 : .04 lbs/hr

30 DAY AVERAGE

ROG : 0 lbs/day

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND COMPLIANCE****APPLICATION PROCESSING AND CALCULATION**

Page 5 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

NOx : 1.84 lbs/day

SOx : 0 lbs/yr

CO : 1 lb/day

PM 10 : 0 lbs/day

DAILY EMISSION DECREASE: ZERO CHANGE

Criteria Pollutant	ROG lb/day	NOX lb/day	SOX lb/day	CO lb/day	PM10 lb/day
New Emissions	0	2	0	1	0
Previous Emissions	0	2	0	1	0
Decrease	0	0	0	0	0

APPLICATION NO. 483453**PREVIOUS EMISSIONS**

Device: D75

Fuel: Natural Gas

Operating Schedule: 24 hrs/day, 7 days/week, 52 weeks/year

Heat Input Rating, MM Btu/hr: 5.075

Fuel Usage: 1,557,600 cubic feet/month, 51,920 cubic feet/day, 2,163 cubic feet/hr

MAX EMISSIONS

ROG: .02 lbs/hr

NOx: .15 lbs/hr

SOx: .003 lbs/hr

CO: .11 lbs/hr

PM 10: .02 lbs/hr

30 DAY AVERAGE

ROG: 0 lbs/day

NOx: 2 lbs/day

SOx: 0 lbs/yr

CO: 2 lb/day

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 6 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

PM 10: 0 lbs/day

NEW EMISSIONS:

See Excel Spreadsheet D75 – Attachment 2

Device: D75

Fuel: Natural Gas

Operating Schedule: 24 hrs/day, 7 days/week, 52 weeks/year

Heat Input Rating, MM Btu/hr: 2.475

Fuel Usage: 1,557,600 cubic feet/month, 51,920 cubic feet/day, 2,163 cubic feet/hr

MAX EMISSIONS

ROG: .02 lbs/hr

NOx: .12 lbs/hr

SOx: .001 lbs/hr

CO: .08 lbs/hr

PM 10: .02 lbs/hr

30 DAY AVERAGE

ROG: 0 lbs/day

NOx: 2 lbs/day

SOx: 0 lbs/yr

CO: 2 lb/day

PM 10: 0 lbs/day

DAILY EMISSION DECREASE: ZERO CHANGE

Criteria Pollutant	ROG lb/day	NOX lb/day	SOX lb/day	CO lb/day	PM10 lb/day
New Emissions	0	2	0	2	0
Previous Emissions	0	2	0	2	0
Decrease	0	0	0	0	0

RULES EVALUATION:

Rule 212- Standard for Approving Permits

Paragraph 212(c)(1) Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to the website mapquest.com the nearest school, Ambler Avenue Elementary School, is beyond 2000 ft. of Prime Wheel's property line. A 30-Day Public Notice is not required under this paragraph.

Paragraph 212(c)(2) The equipment will not result in on-site emission increasing exceeding the daily maximum emissions as specified in the table in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

Paragraph 212(c)(3) Public notice will not be required under this paragraph. See Rule 1401 evaluation section.

Rule 401- Visible Emission: No visible emission is expected if the equipment is well maintained and properly operated. Therefore, compliance is expected.

Rule 402- Nuisance: There has been one nuisance complaint in the last five years. The description of the complaint was for foul odors possibly coming from smoke emissions on the roof. The facility has proposed to remove all chrome emissions and decrease the total heat input rate of the burners from the heat treatment oven and the spray tunnel process line. Also, the company has removed burners from two of the tanks in the spray tunnel process line. They also have added two new chemicals to their spray tunnel process line, but they are non toxic and have no VOC. Therefore, the modifications are not expected to create any odors problems because there is expected to be less emissions coming from the spray tunnel process line and the heat treatment oven.

Rule 404 – Particulate Matter Concentration: The calculated concentration of PM emissions is less than the limit set by Rule 404. Equipment is expected to operate in compliance.

Rule 407 – Liquid and Gaseous Air Contaminants: The calculated CO emission is less than the 2000 ppm by volume limit set by Rule 407. Compliance is expected.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

Page 8 of 8
Date: 10/31/08
A/P: See Page 1
PROCESSED BY: MS
CHECKED BY:

Rule 409 – Combustion Contaminants: Compliance is expected from well maintained and properly operated equipment.

Reg XIII and Reg 2005 – New Source Review: The modifications to the equipment will not result in an increase in emissions therefore no further analysis is required. NSR does not apply. BACT, Modeling, and Offsets do not apply.

Rule 1401- New Source Review of Toxic Air Contaminants: The chrome tank has been changed to DI water. There is expected to be zero chrome emissions. The new Phosphonic Acid or Phosphorous Acid chemical that is processed in an unheated tank in the spray tunnel process line is not listed in Table I of Rule 1401. Therefore, Rule 1401 does not apply.

Reg XXX – Title V Permits: Applications for de minimis significant permit revisions require EPA 45-day review.

CONCLUSIONS AND RECOMMENDATIONS:

Based on the evaluation contained herein, the subject equipment is expected to comply with all of the District's rules and regulations; therefore, I recommend a Permit to Operate be issued to the spray tunnel process line (A/N 476329) and heat treatment oven (A/N 483453) and recommend a revision to the Title V Permit.

Spray Tunnel D97, D101

Attachment 1

EMISSIONS FOR FIRING ON NATURAL GAS (OVENS, FURNACES, HEATERS, ETC.)

Emission factors are from form B-1
Except NOx which is calculated from the ppm of NOx

Maximum Burner Rating in BTU/hr =	5,300,000 BTU/hr	Device 97, 101
Max conditioned fuel usage =	720,000 CF/mo	
Previously conditioned fuel usage =	0 CF/mo	
Average Operating Schedule =	24 hr/day	
Maximum Operating Schedule =	24 hr/day	
Expected emission of NOx=	60 ppm	
Average Loading=	100.0%	
Maximum Loading =	100.0%	
Maximum operating days per month =	30 days	

AVERAGE EMISSIONS

RHC =	0.0353 lb/hr	0.8480 lb/day
NOx =	0.3848 lb/hr	9.2347 lb/day
SO2 =	0.0030 lb/hr	0.0727 lb/day
CO =	0.1767 lb/hr	4.2400 lb/day
PART =	0.0379 lb/hr	0.9086 lb/day

MAXIMUM EMISSIONS

RHC =	0.0353 lb/hr	0.8480 lb/day
NOx =	0.3848 lb/hr	9.2347 lb/day
SO2 =	0.0030 lb/hr	0.0727 lb/day
CO =	0.1767 lb/hr	4.2400 lb/day
PART =	0.0379 lb/hr	0.9086 lb/day

Thirty day average emissions

RHC =	0 lb/dy	60 lb/yr
NOx =	1.84 lb/dy	664 lb/yr
SO2 =	0 lb/dy	5 lb/yr
CO =	1 lb/dy	302 lb/yr
PART =	0 lb/dy	65 lb/yr

Monthly Emissions

RHC =	5.04 lb/mo
NOx =	55.30 lb/mo
SO2 =	0.43 lb/mo
CO =	25.20 lb/mo
PART =	5.40 lb/mo

HEAT TREAT OVEN D75

Attachment 2

EMISSIONS FOR FIRING ON NATURAL GAS (OVENS, FURNACES, HEATERS, ETC.)

Emission factors are from form B-1
Except NOx which is calculated from the ppm of NOx

Maximum Burner Rating in BTU/hr =	2,475,000 BTU/hr	Device 75
Max conditioned fuel usage =	1,557,600 CF/mo	
Previously conditioned fuel usage =	0 CF/mo	
Average Operating Schedule =	24 hr/day	
Maximum Operating Schedule =	24 hr/day	
Expected emission of NOx=	40 ppm	
Average Loading=	100.0%	
Maximum Loading =	100.0%	
Maximum operating days per month =	30 days	

AVERAGE EMISSIONS

RHC =	0.0165 lb/hr	0.3960 lb/day
NOx =	0.1198 lb/hr	2.8750 lb/day
SO2 =	0.0014 lb/hr	0.0339 lb/day
CO =	0.0825 lb/hr	1.9800 lb/day
PART =	0.0177 lb/hr	0.4243 lb/day

MAXIMUM EMISSIONS

RHC =	0.0165 lb/hr	0.3960 lb/day
NOx =	0.1198 lb/hr	2.8750 lb/day
SO2 =	0.0014 lb/hr	0.0339 lb/day
CO =	0.0825 lb/hr	1.9800 lb/day
PART =	0.0177 lb/hr	0.4243 lb/day

Thirty day average emissions

RHC =	0 lb/dy	131 lb/yr
NOx =	2.66 lb/dy	957 lb/yr
SO2 =	0 lb/dy	11 lb/yr
CO =	2 lb/dy	654 lb/yr
PART =	0 lb/dy	140 lb/yr

Monthly Emissions

RHC =	10.90 lb/mo
NOx =	79.75 lb/mo
SO2 =	0.93 lb/mo
CO =	54.52 lb/mo
PART =	11.68 lb/mo