

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	1 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

PERMIT TO OPERATE EVALUATION

Applicant's Name HONEYWELL INTERNATIONAL INC

Company I.D. 800003

Mailing Address 2525 W. 190TH ST.
TORRANCE, CA 90504-6061

Equipment Address 2525 W. 190TH ST.
TORRANCE, CA 90504-6061

EQUIPMENT DESCRIPTION

APPLICATION NO. 486026

Title V deminimis significant permit revision

APPLICATION NO. 475872 (po no pc, Device D233)

EPOXY DIP TANK, 32 INCH H. X .22.5 INCH D. X 41 INCH L., 120 GALLONS, UNHEATED, WITH OVERHEAD HOOD VENTED TO CARBON ADSORBER C79, IN SILVER EPOXY ROOM.

APPLICATION NO. 475873 (po no pc, Device D234 & D237)

WASH COAT SYSTEM, CONSISTING OF:

1. JAR MILL, 3 GALLON EUROTHANE COATED JAR, WITH JAR MILL BALLS.
2. MIXER POT, 20 INCH DIA. X 24 INCH H., 10 GALLON CAPACITY, STAINLESS STEEL, WITH AN AIR DRIVEN MOTOR AND COVER.
3. EXHAUST HOOD 1, WITH TWO VACUUM PUMP CHAMBERS USED TO COAT PARTS
4. EXHAUST HOOD 2, WITH COMPRESSED AIR TO BLOW OFF EXCESS SLURRY FROM COATED PARTS
5. EXHAUST HOOD 3, DRY OFF AREA
6. 1/3 HP EXHAUST FAN VENTING THE THREE EXHAUST HOODS

ALL VENTED TO CARBON ADSORBER, IN SILVER EPOXY ROOM.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	2 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

APPLICATION NO. 475874 (Device C79, D39 AND D40; PREV. P/O NO. D04611, A/N 148654)

MODIFICATION TO AIR POLLUTION SYSTEM CONSISTING OF:

1. CARBON ADSORBER (DEVICE C79), VIC, MODEL 996-12.5AS, SINGLE BED, 13 FT L. X 9 FT DIA.
2. SPRAY BOOTH DEVICE (D39), BINKS, BENCH TYPE, MODEL BF-6-7-T-B, 6 FT W. X 5FT 2 INCH D. X 7 FT 2 INCH H., SIX 20 X 20 EXHAUST FILTERS
3. SPRAY BOOTH DEVICE (D40), BINKS, BENCH TYPE, MODEL BF-6-7-T-B, 6 FT W. X 5FT 2 INCH D. X 7 FT 2 INCH H., SIX 20 X 20 EXHAUST FILTERS.
4. EXHAUST SYSTEM VENTING TWO SPRAY BOOTHS (D39 AND D40) AND TWO EPOXY DIP TANKS (D75 AND D76), WITH A 100 HP EXHAUST FAN.

BY THE ADDITIONAL VENTING OF A THIRD EPOXY DIP TANK (D233) AND THE WASH COAT SYSTEM (D234 & D237), IN THE SILVER EPOXY ROOM.

APPLICATION NO. 549189 (Device D75, ADMIN. CHANGE OF COND., PREV P/O D04613, A/N 148660)

EPOXY DIP TANK, 1100 GALLONS, UNHEATED, IN THE SILVER EPOXY ROOM.

APPLICATION NO. 549192 (Device D76, ADMIN. CHANGE OF COND., PREV P/O D04612, A/N 148659)

EPOXY DIP TANK, 800 GALLONS, UNHEATED, IN THE CLEAR EPOXY ROOM

BACKGROUND/HISTORY

Appl. No.	Device no.	Previous		Equipment	Action to be taken
		P/O	A/N		
486026				TV Revision Plan	Approve plan
475872	D233	none	none	Epoxy Dip Tank	P/O no P/C
475873	D234 & D237	none	none	Wash coat system	P/O no P/C
475874	C79, D39, D40	D04611	148654	Carbon adsorber and two spray booths	Modification to vent D233 and D234 and change condition from gallons/day to pounds VOC/month
549189	D75	D04613	148660	Epoxy dip tank	Admin. change of cond. to include above in emission bubble and change condition from gallons/day to pounds VOC/month
549192	D76	D04612	148659	Epoxy dip tank	

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	3 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

Honeywell International Inc submitted the above permit applications with AQMD in 2007 to obtain permits to operate for one epoxy dip tank and one wash coat system both of which do not have permit to operate, and modification to the APC system consisting of a carbon adsorber and spray booths to vent the epoxy dip tank and wash coat system . The facility has requested to bubble the emissions from the dip tank and wash coat system under the existing 44.5 gallons/day coating group bubble which currently includes two spray booths (device no. D39 and D40) vented to carbon adsorber and two dip tanks (device no. D75 and D76). The facility has also requested the 44.5 gallons/day limit be converted to a lbs VOC/month limit for all these six permit units (Devices D39, D40, D75, D76, D233, D234 & D237). All the equipment is vented to carbon adsorber device no. C79. Change of condition applications were filed for the two existing dip tanks to include the third dip tank and wash coat system in the group emission cap and convert from gal/day to lbs VOC/month.

Honeywell is a RECLAIM Cycle II and Title V Group A facility. The most recent Title V renewal permit was issued on March, 25, 2010. This is the fifth revision since the second Title V renewal permit was issued. A/N 486026 was submitted for deminimis significant permit revision. Included in this revision is the name change for responsible official in section A (New responsible official is: Preston Mathis, Director- Integrated supply chain, to replace George Keown). Also included in this revision is the addition of two braze furnaces which have been evaluated separately. Please refer to Reg XXX evaluation for a summary of this fifth revision.

The District's compliance database, for the last two years, for the facility (ID # 800003), shows two notices to comply and one notice of violation issued to the facility. N/C no. E03266 was issued on 3-9-2011 to report quarterly aggregate emissions for all sources - this was closed on 11-30-2011. N/C no. E03292 was issued on 11-30-2011 to apply the correct emission factor to calculate emissions from process unit D217 and to apply missing data procedure (MDP) properly for large source D104. This NC was closed on 12-2-2011. NOV # P57810 was issued on 12-12-2012, for the following reasons :(1) failure to report the electronic emissions using all proper codes; (2) submit 500-ACC report for CY2011; (3) report accurate fuel usages of Large Source; (4) report accurate fuel usages of Process Units; and (5) report accurate R219 emission. This NOV was closed on 1-10-2013, according to the enforcement database. There are no pending N/Cs or NOVs. No records of complaints were found in the compliance database. During the last inspection on 12-12-2012, the facility was found in compliance with all District rules and regulations except for the above mentioned NOV.

PROCESS DESCRIPTION AND EMISSIONS

The new epoxy dip tank (device D233) is used to coat a variety of aerospace parts similar to the other two dip tanks (D75 and D76). This tank uses a different mixture than to coat parts than the other two dip tanks. This tank is located in the silver epoxy room and vented to the carbon adsorber (C79) through an overhead hood.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	4 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

The wash coat system (D234 & D237) is used in the manufacturing of ozone catalytic converters to make them more efficient by increasing the surface area of the convertor core. These processes involve making a slurry of toluene, aluminum oxide and trade secret ingredients in a jar mill and then a mixer pot, application of the slurry in a vacuum chamber located inside a ventilated hood #1. A vacuum is pulled on the chamber then the slurry is pumped directly from the mixer pot to the vacuum chamber. There are two adjacent hoods: in hood #2, compressed air is blown over the coated parts to remove excess coating from the parts, and the excess coating goes back to the mixing pot; in hood #3, the parts are left to air dry. Both Hood #2 and #3 are also vented to the permitted carbon adsorber. The wash coat system is located in the silver epoxy room. The room is under negative pressure.

The carbon adsorber permit is part of an APC system which also includes two spray booths D39 and D40. This permit is being modified to also vent the new dip tank and wash coat system located in the silver epoxy room. Spray booth D39 is located in the clear epoxy room, and spray booth D40 is located in the silver epoxy room. These two spray booths and the two existing dip tanks D75 and D76 all operate under an existing group coating usage limit of 44.5 gallons per day. The current coating usage for devices D39, D40, D75, D76 and D233 is 7.34 gallons per day averaged over a period of 177 operating days, well below 44.5 gallons/day limit. The spray booths and dip tanks are subject to Rule 1124. All of the equipment is vented to a carbon adsorber (Device C79) with 90% overall efficiency. As a result of the use of this control device, higher VOC content coatings can be used in the spray booths and still comply with Rule 1124.

The wash coat system is subject to Rule 442. A facility condition already exists in the permit limiting total facility VOC emission from Rule 442 operations to 833 lb VOC/month. The actual usage of coatings is 0.84 gallons/day averaged over 310 operating days. This wash coat system does not fall in any category of Rule 1124 and therefore is subject to Rule 442.

The new dip tank and wash coat system are subject to Rule 1401 version dated 3-4-2005. All of the equipment is vented to a carbon adsorber (Device C79) with 90% overall efficiency. As a result of the use of this control device, higher VOC content coatings can be used in the spray booths and still comply with Rule 1124.

Silver Epoxy Room	Clear Epoxy Room
D40 – Spray booth	D39 – Spray booth
D75 – epoxy dip tank with side slot vent	D76 – epoxy dip tank with hood
D233 – epoxy dip tank with overhead vent	
D234 – wash coat system	

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	5 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

Conversion from gallons/day to lbs VOC/month:

The facility has requested to convert the group coating usage limit from 44.5 gallons/day to lbs VOC/month and include the new equipment. At present Devices D39, D40, D75 and D76 operate under the group usage limit of 44.5 gallons per day. Review of the 1988 evaluation folder for the Carbon Adsorber under a/n 148654 indicated that the two spray booths and two dip tanks are vented to carbon adsorber with the daily VOC emission limit of 44.5 gallons. VOC emissions were calculated using a VOC content of 6.3 lbs/gal.

Total VOC in lbs = 44.5 gal/day x 6.3 lbs/gal= 280.35 lbs/day of VOC.

The carbon adsorber was tested in 1987 and the overall efficiency was 90% at a minimum. The adsorber will be tested again in Sept 2013 to meet the Title V periodic monitoring requirement.

The resulting emissions = (280 x (1-0.9)) = 28 lbs/day.

Converting to monthly = 28 lbs/day x 30 days/month = 840 lbs/month VOC

Carbon adsorber detail:

The carbon VOC removal efficiency from obtained from the previous source test report. The test was performed in year 1987 and was approved by the District Source Test Department. A copy is included in the folder for this equipment. With the >90% collection efficiency of VOC due to enclosed rooms, it complies with the Rule 1124 control requirements of minimum 90% collection efficiency and 95% destruction (removed) efficiency.

The carbon adsorber will continue to operate under provisions of existing permit condition A72.1 (90% control efficiency) and E193.1 (mandating regeneration schedule, monitoring and recordkeeping). This complies with BACT for all equipment it vents.

Operating hours:

Average: 12 hr/day, 5 day/week, 50 weeks/year

Maximum: 24 hr/day, 7 day/week, 50 weeks/year

RULES/REGULATION EVALUATION

RULE 212, PUBLIC NOTIFICATION

SECTION 212(c) (1):

This section 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. This facility is not located within 1000 feet from a school; therefore, these applications will not be subject to the public notice requirements under this section.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	6 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

SECTION 212(c) (2):

This section requires a public notice for all new or modified equipment and facilities, which have emission increases exceeding any of the daily maximums as specified in subdivision (g). There are no emission increases from this facility due to this project since the new equipment will be included under the existing group cap; therefore public notice will not be required.

SECTION 212(c) (3):

This section requires a public notice for all new or modified sources, which have on-site emission increases resulting in a cancer risk of more than 1 in a million. Please see Rule 1401 section. There are no carcinogenic compound emissions from the new dip tank and wash coat system and no emission increase from the spray booth and dip tanks, public notice is not required.

SECTION 212(g):

This section requires a public notice for all new or modified sources which undergo construction or modification resulting in an emission increase exceeding any of the daily maximum specified in the table below. As shown in the following table, the emission increases of criteria pollutants from these sources are less than the daily maximums specified in this section. From the new dip tank and wash coat system, there is a maximum emission of 28 lbs/day VOC (840 lbs/month VOC group cap). From the change of condition of the spray booths and dip tanks, there is a maximum increase of 840 lbs/month (maximum potential in one day) – 28 lbs/day = 812 lbs/30 = 27 lbs/day maximum increase. Public notice will not be required by this section.

LB/DAY	CO	NOX	PM₁₀	ROG	Lead	SOX
MAX. LIMIT	220	40	30	30	3	60
INCREASES	0	0	0	27-28	0	0

RULES 401 & 402, VISIBLE EMISSIONS & NUISANCE

Visible emissions and odors from this equipment are not expected with proper maintenance and operation. There are no complaints or notices for visible emissions, odors or nuisance issued in the last two years for this facility. Compliance is expected.

RULE 442, USAGE OF SOLVENTS

Devices D234 & D237 (wash coat system) are subject to this Rule. The coating VOC used in this tank is 705 gms/liter. This equipment complies with the requirement of this rule under subsection (d)(1) by keeping emissions of VOCs to the atmosphere from all VOC-containing materials, equipment or processes subject to this rule, under 833 pounds per month for the facility. The facility has stated that the current maximum VOC emissions in the last 6 months inclusive of the wash coat system were 470 lbs and the emissions will remain under 833 lbs/month.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	7 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

RULE 1124

Spray booths (D39 and D40) and dip tanks (D75, D76 and D233) are subject to this Rule. The facility has requested that all the information regarding mixing ratios and VOC contents confidential. I have reviewed the information submitted by the facility and the summary of data is as follows:

Appl. no.	Device no.	Equipment	VOC of coating gms/liter
475872	D233 and D40 (alternate coating for D40 only)	Epoxy dip tank & Spray booth	738
475874	D39	Spray booth	810
475874	D40	Spray booth	872
549189	D75	Epoxy dip tank	766
549192	D76	Epoxy dip tank	810

HVLP guns are used in the spray booths. The VOC content of some coatings used in the spray booths and dip tanks may be greater than the VOC limits in this rule. However, this equipment is vented to a carbon adsorber which will meet 90% collection and 95% removal efficiency according to the last source test results. A source test will be conducted in September 2013 to verify VOC control efficiency. Compliance with this rule is expected.

RULE 1171

The facility uses acetone as clean-up solvent. This complies with the Rule requirement.

REGULATION XIII

- ▣ ***RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)***
(a) VOC EMISSIONS

BACT is met by venting all the equipment Devices D39, D40, D75, D76, D233, D234 & D237 to the permitted carbon adsorber with minimum 90% overall efficiency.

- ▣ ***RULE 1303(b) (1), MODELING***

Modeling is not required for VOC.

- ▣ ***RULE 1303 (b) (2), EMISSION OFFSETS***

There is no increase in any criteria pollutant emissions from this facility due to this project since the new equipment is bubbled with the existing cap and the change of condition conversion is from daily gallons to monthly VOC, therefore no offsets are required.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	8 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

□ **RULE 1401, NEW SOURCE REVIEW OF CARCINOGENIC AIR CONTAMINANTS**

This Rule is applicable to devices D233 and D234 in this project and is subject to the March 4, 2005 version of Rule 1401. The compounds emitted are toluene, xylene and ethyl benzene which are acute and chronic. Please see detailed calculation in file. The Tier II risk analysis was done for both the devices D233 and D234 assuming worst case scenario and the results for both devices show that both acute and chronic indices are less than one. This complies with the rule requirement and a permit condition will be imposed. The rest of the equipment is exempt from Rule 1401 under (g) (1) (B) - modification with no increase in risk.

REGULATION XXX:

This facility is in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” to the second Title V renewal permit issued to this facility March 25, 2010 for non-RECLAIM pollutants or hazardous air pollutants (HAPs), and a “minor permit revision” for RECLAIM pollutants to the RECLAIM/Title V permit for this facility. Rule 3000(b)(6) defines a “de minimis significant permit revision” as any Title V permit revision where the cumulative emission increases on non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

Rule 3003(j) specifies that a proposed permit for the initial Title V permit shall be submitted to EPA for review. To determine if a project qualifies for a “de minimis significant permit revision”, emission increases resulting from all permit revisions that are made after the submittal of proposed permit to EPA shall be accumulated and compared to the above threshold levels. This is the fifth permit revision to the Title V Permit since the last renewal. Also included in this revision is the addition of two braze furnaces under separate evaluation. The cumulative emission increases resulting from this proposed permit revision are summarized as follows:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION <i>Large Coating, Printing and Aerospace Operations Team</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	9 of 9
	APP. NUMBERS	See Below
	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	5/1/13

	Revision	HAP	VOC	NOx	PM ₁₀	SOx	CO
1 st	Add new laser cutter and dust collector, a/n 497492 and 512708	0	0	0	0	0	0
2 nd	Modification of the Nickel powder application system a/n 515813 - P/C	0	0	0	0	0	0
3 rd	Admin: Convert P/C to P/O for a/ns 498864 (boiler), 498865 (surface prep line), 498866 (scrubber), 501172 (spray booth) and 515813 (Ni powder system)	0	0	0	0	0	0
4 th	Admin: Remove permit condition I296.1(device D217)	0	0	0	0	0	0
5 th	Addition of two braze furnaces (a/n 475875 and 476239),	0	0	0	0	0	0
	Addition of a dip tank (a/n 475872) and a wash coat system (a/n 475873), modification & c/c to APC system to vent dip tank and wash coat system (a/n 475874), and c/c for two dip tanks to change group VOC cap (a/n 549189 & 549192)	0	0	0	0	0	0
	Cumulative Total	0	0	0	0	0	0
	Maximum Daily	30	30	40	30	60	220

Since NOx is a RECLAIM pollutant for this facility, an analysis must be made to ensure that the proposed permit revision is not considered a “significant permit revision” even though the cumulative increase in NOx emissions is less than the threshold level of 40 lbs/day. Rule 3000(b)(28)(D) defines a “significant permit revision” as any modification at a RECLAIM facility that results in an emission increase of RECLAIM pollutants over the facility’s starting Allocation plus the non-tradable Allocations. There are no NOx emission increases from this project. As a result, the proposed permit revision is not considered as a “significant permit revision”.

CONCLUSIONS/RECOMMENDATIONS

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision”, it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not raise any objections within the review period, a revised Title V permit will be issued to this facility with Permits to Operate issued for this equipment in Section D, and a revised Section A with new responsible official.