

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b> Large Coating, Printing and Aerospace Operations Team <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGE	1 of 5
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	PROCESSED BY	GS
	REVIEWED BY	SMKE
	DATE	9/12/08

**PERMIT TO CONSTRUCT EVALUATION**

**Applicant's Name** HONEYWELL INTERNATIONAL INC.

**Company I.D.** 800003

**Mailing Address** 2525 W. 190<sup>TH</sup> ST.  
TORRANCE, CA 90504-6061

**Equipment Address** 2525 W. 190<sup>TH</sup> ST.  
TORRANCE, CA 90504-6061

**EQUIPMENT DESCRIPTION**

APPLICATION NO. 475870

Title V deminimis significant permit revision

APPLICATION NO. 486027 (P/C – new construction, Device D214)

TANK, METAL CLEANING, ULTRASONIC, NITRIC ACID, 4'-3" W. X 3'-2" L. X 5'-8" D., ELECTRICALLY HEATED

**BACKGROUND/HISTORY**

Appl. No.	Previous		Equipment	Reason for Application
	A/N	P/O		
475870	n/a	n/a	Title V Revision-Deminimis Significant	Title V Revision
486027	none	none	Ultrasonic nitric acid tank, heated (D214)	P/C – new construction

Honeywell International Inc. submitted the above permit applications for permit to construct a nitric acid tank. Honeywell has proposed to install a brand new, electrically heated ultrasonic cleaning tank which will be used to clean aluminum parts. This facility operates a number of equipment at this site under the RECLAIM/Title V permit.

Honeywell is a RECLAIM Cycle II and Title V Group A facility. The initial Title V permit was issued on September 22, 1999 and the Title V renewal permit was issued on September 22, 2004.

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This is the second revision since the Title V renewal permit was issued. A/N 475870 was submitted for deminimis significant permit revision. There are several projects which are part of this revision, and have been evaluated separately. Please refer to the separate Reg XXX evaluation for a summary of this revision.

The District's compliance database, for the last two years, for the facility (ID # 800003), shows one NOV no. P79460 which has since been closed according to the supervising inspector Victor Yip (his e-mail is on file). There are no N/Cs issued in the last two years. No records of nuisance complaints were found in the compliance database. During the last inspection on 5-02-08, the facility was found in compliance with all District rules and regulations.

**PROCESS DESCRIPTION**

This tank will be used to clean aluminum parts, but not etch the metal. The applicant has stated that there is no NOx formation at all and no fumes are generated because the nitric acid concentration is so low (6% by volume maximum). The parts will be introduced in the tank for cleaning. Except for introduction and removal of the parts, the tank lid will remain closed which will minimize any PM emissions. The PM emissions if any are negligible. This tank will have a maximum nitric acid concentration of 6% by volume, and a permit condition will be included to limit the concentration.

Average: 24 hr/day, 6 day/week, 50 weeks/year

Maximum: 24 hr/day, 6 day/week, 50 weeks/year

**EMISSIONS**

This tank will have 4 to 6% by volume nitric acid. Such a low concentration of nitric acid is not strong enough to etch the aluminum.

Calculation of PM emissions:

To convert volume % nitric acid to weight percent:

Sp gravity of HNO<sub>3</sub> = 1.5

Density of water = 8.34 lbs/gal

Density of HNO<sub>3</sub> = 1.5 x 8.34 = 12.53 lbs/gal

Wt HNO<sub>3</sub> = 12.53 x 0.06 = 0.75 lbs

Total wt of 1 gal = (8.34 x 0.94) + 0.75 = 8.5896 lbs



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**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. Nitric acid, which is an acute TAC listed in Rule 1401 is the only toxic emitted from this equipment. The HIA is below 1, therefore public notice is not required.

**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.

**REGULATION XIII**

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

BACT is not triggered as there is no emission increase in criteria pollutants over 1 lb/day from the equipment.

- **RULE 1303(b) (1), MODELING**

Emissions of PM10 are less than 0.1 lbs/hr which is below the 0.41 lbs/hr threshold in Rule 1303 Table A-1. Modeling is not required

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

The PM emission increase from this equipment and facility is less than 1 lb/day, therefore no offsets are required.

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

Nitric acid is an acute TAC listed in this rule. As discussed in the report above, there may be an extremely small quantity of nitric acid emitted, but the emissions well below the Rule 1401 screening level of 0.04 lbs/hr and HIA is below 1. This project complies with Rule 1401.

**REGULATION XXX:**

**PLEASE REFER TO SEPARATE REG XXX EVALUATION**

This is the second revision to the title V renewal permit issued on 9/22/04. This revision consists of several projects which were evaluated separately.

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**RECOMMENDATION:**

The proposed project is expected to comply with all the 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 the EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility with the above equipment in section H as permit to construct.