

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE AND COMPLIANCE DIVISION Large Coating, Printing and Chemical Operations Team APPLICATION PROCESSING AND CALCULATIONS	PAGE	1 of 5
	APP. NUMBER	500682
	PROCESSED BY	SMP
	REVIEWED BY	
	DATE	08/09/09

**PERMIT TO CONSTRUCT EVALUATION
TITANIUM ANODIZING LINE**

Applicant's Name	E.M.E., INC.
Company I.D.	45938
Mailing Address	431 E. OAKS STREET, COMPTON, CA 90221
Equipment Address	P.O. BOX 4998, COMPTON, CA 90224

EQUIPMENT DESCRIPTION

Application No. 500682 (New Cconstruction)

TITANIUM ANODIZING LINE CONSISTING OF:

1. TANK, NO. 100, ANODIZING, POTASSIUM HYDROXIDE, RECTIFIED, AND ELECTRICALLY HEATED.
2. ASSOCIATED RINSE AND DRAG-OUT TANKS.

Application No. 501376

TITLE V PERMIT REVISION

HISTORY

E.M.E. (Electro Machine and Engineering) is a major aerospace component manufacturer in the District. They have submitted the above permit application with the District to install a titanium anodizing line at this location. This alkaline anodizing line is expected to emit less than 0.5 lbs/day PM10 emissions. Thus BACT will not trigger for this project and no offsets will be required.

EME Inc. is an aerospace component manufacturer (job-shop), where parts are surface treated and plated per customer's specifications. It has a number of permitted equipment, such as ovens, scrubber, bag-house, I. C. Engines, surface preparation tanks, chromium anodizing line, abrasive blasting equipment, spray booths, etc. under I.D. # 45938. E.M.E., Inc. is a Title V facility. The aerospace component manufacturing operation involves fabrication, cleaning, heat-treatment, coating, plating, and testing operations.

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The district database shows no notices to comply or violations are issued to this company in the last two years. Also, the database shows no complaint against this facility for nuisance odors or visible emissions in the last two years.

This facility is located in an industrial area and no schools are located within 1000 feet from the property-line. There are no carcinogenic air toxic emissions involved in the proposed above process line, thus there will not be an increase in the facility MICR. Also, emissions of the criteria pollutants from this project are expected to be below the threshold limits. Thus, Rule 212 public notice is not required for this project.

A Title V renewal permit for this facility was issued on July 28, 2008. The proposed project is considered a “de minimis significant permit revision” to the renewed Title V permit, as described in Regulation XXX evaluation.

PROCESS DESCRIPTION

Aerospace titanium components will be anodized in this alkaline (potassium hydroxide) anodizing tank. The tank is heated and rectified which generate particulate emissions. The tank will be covered with poly-balls all the time and with a cover when not in use to reduce particulate emissions. This process creates an oxide film on the titanium surface, which protects the metal underneath from hostile environmental exposures to provide corrosion prevention.

OPERATING HOURS

Average : 16 hour/day, 7 day/week, 52 weeks/year
Maximum: 24 hour/day, 7 day/week, 52 weeks/year

EMISSION CALCULATIONS

District Toxic unit excel worksheets were used to calculate the emissions from the proposed anodizing line (see attached copies). For the potassium hydroxide anodizing tank, the applicant has requested 976,000 amp-hr yearly usage limits, which is 12.4% of the total amp-hrs., if 900 ampere (maximum rectifier limit) is used on 24 hours throughout 365 days/year. Thus emissions are calculated as if the rectifier is of 112 (12.4% of 900) amperes only. The calculations show expected PM10 emissions are to be 0.0015 lbs/hr (0.04 lbs/day). Thus, the maximum PM10 emissions will be <0.5 lb/day.

There are no Rule 1401 toxic air contaminants associated with this project. Compliance is expected with Rule 1401.

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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 source is not located within 1,000 feet from the outer boundary of a school. Therefore, public notice is not required by this section.

√ *SECTION 212(c)(2):*

This section requires a public notice for all new or modified facilities which have on-site emission increases exceeding any of the daily maximums as specified in subdivision (g). As shown in the following table, the emission increases are below the daily maximum limits specified by Rule 219(g). Therefore, this application will not be subject to this section.

LB/DAY	CO	NOX	PM ₁₀	ROG	SOX	Pb
MAX. LIMIT	220	40	30	30	60	3
INCREASES	0	0	0	0	0	0

√ *SECTION 212(c)(3):*

There are no carcinogenic air toxic emissions expected from this equipment. Therefore, this application will not be subject to this section.

√ *SECTION 212(g):*

This section requires a public notice for all new or modified sources which undergo construction or modifications which have emissions increases exceeding any of the daily maximum limits specified in the table below. As shown in the following table, the emission increases are below the daily maximum limits. Therefore, this application will not be subject to this section.

LB/DAY	CO	NOX	PM ₁₀	ROG	Lead	SOX
MAX. LIMIT	220	40	30	30	3	60
INCREASES	0	0	0	0	0	0

□ *RULES 401 & 402, VISIBLE EMISSIONS & NUISANCE*

No visible emissions are expected with the proper operation and maintenance of the equipment.

REGULATION XIII

□ *RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)*

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(b) PM10 EMISSIONS

With the expected PM10 emissions to be <1 lb/day, BACT is not triggered.

▫ **RULE 1303(b)(1), MODELING**

No detailed modeling analysis is required due to less than 0.41 lbs/hr PM10 emissions.

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

The PM10 emissions from this project are expected to be less than 0.5 lbs/day. Hence, emission offsets are not required for this project.

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

There are no toxic air contaminant emissions associated with this equipment. Thus, compliance with these requirements is expected.

REGULATION XXX

This facility is not in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” to the 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 of non-RECLAIM pollutants or hazardous air pollutants (HAPs) 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

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the 1st permit revision to the Title V renewal permit issued to this facility in July 28, 2008. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

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Revision	HAP	VOC	NOx	PM ₁₀	SOx	CO
1st Permit Revision. Add PC/PO for Titanium Anodizing Line, A/N 500682	0	0	0	0	0	0
Cumulative Total	0	0	0	0	0	0
Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision”.

RECOMMENDATION

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 have any objections within the review period, a revised Title V permit will be issued to this facility.