

# South Coast Air Quality Management District

## Statement of Basis

### Proposed Title V Renewal Permit

<b>Facility Name:</b>	NASA Jet Propulsion Laboratory
<b>Facility ID:</b>	011887
<b>SIC Code:</b>	9661
<b>Equipment Location:</b>	4800 Oak Grove Drive Pasadena, CA 91109
<b>Application #(s):</b>	517428
<b>Application Submittal Date(s):</b>	12/23/10
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#### 1. Introduction and Scope of Permit

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. This permit replaces the facility's other existing permits. Title V does not necessarily include any new requirements for reducing emissions. It does, however, include new permitting, noticing, recordkeeping, and reporting requirements.

Pursuant to Title V of the federal Clean Air Act and AQMD Rule 3004(f), a Title V permit shall expire five years from the date of issuance unless such permit has been renewed. Accordingly, each facility is required to submit a Title V renewal application and requested the AQMD to renew their Title V permit. The proposed permit incorporates updates to the facility information provided in the facility's Title V renewal application and all rules and regulations that are currently applicable to the facility.

The AQMD implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings.

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant. NO<sub>2</sub>, SO<sub>2</sub>, CO, and lead are in attainment with federal standards. The status for PM-10 is serious nonattainment. The status for ozone is currently extreme nonattainment.

A Title V renewal permit is proposed to be issued to cover the operations of NASA Jet Propulsion Laboratory located at 4800 Oak Grove Drive, Pasadena, CA 91109. This facility is subject to Title V requirements because it is a major source.

## **2. Facility Description**

This is an existing facility applying for a Title V permit renewal that performs space research and development. The facility operates internal combustion engines, spray booths, cleaning equipment, semiconductor and integrated circuit manufacturing operation, and other supporting equipment. Particulate matter emissions from the semiconductor and integrated circuit manufacturing operation are vented to an air pollution control equipment consisting of an oxidizer and scrubbers.

## **3. Construction and Permitting History**

The facility has been in constant operation with a Title V permit at this location since 2001. Numerous permits to construct and or permits to operate have been issued to the facility since October 2001. A Title V renewal permit was issued to the facility on October 1, 2006.

## **4. Regulatory Applicability Determinations**

Applicable legal requirements for which this facility is required to comply are required to be identified in the Title V permit (for example, Section D, E, and H of the proposed Title V permit). Applicability determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) can be found in the Engineering Evaluations. This facility is not subject to any NSPS requirements. However, the facility is subject to the applicable requirements of 40CFR63 Subpart T- Halogenated Solvent Cleaning. The requirements of this NESHAP are reflected in the Title V permit.

## **5. Monitoring and Operational Requirements**

Applicable monitoring and operational requirements for which the facility is required to comply are identified in the Title V permit (for example, Section D, F, and J and Appendix B of the proposed Title V permit). Discussion of any applicable operational requirements can be found in the Engineering Evaluations. All periodic monitoring requirements were developed using strict adherence to the following applicable guidance documents: SCAQMD Periodic Monitoring Guidelines for Title V Facilities (November 1997); CAPCOA/CARB/EPA Region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP (June 1999); and CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources (July 2001).

The particulate emissions from the semiconductor and integrated circuit manufacturing equipment are vented to an air pollution control equipment consisting of an oxidizer and scrubbers. However, since the pre-control potential to emit of PM10 is less than 70 tons per

year, the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 is not applicable to the air pollution control equipment.

## 6. Permit Features

### Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility an explicit protection from requirements that do not apply to the facility. A permit shield is a provision in a permit that states that compliance with the conditions of the permit shall be deemed compliance with all identified regulatory requirements. To incorporate a permit shield into the Title V permit involves submission of applications for change of conditions for each equipment affected by the permit shield. Permit shields are addressed in Rule 3004 (c). This facility has not applied for a permit shield.

### Streamlining Requirements

Some emission units may be subject to multiple requirements which are closely related or redundant. The conditions may be streamlined to simplify the permit conditions and compliance. Emission limits, work practice standards, and monitoring, recordkeeping, and reporting requirements may be streamlined. Compliance with a streamlined condition will be deemed compliance with the underlying requirements whether or not the emission unit is actually in compliance with the specific underlying requirement. This facility has not applied for any streamlined conditions.

## 7. Summary of Emissions and Health Risks

### **Criteria Pollutant Emissions (tons/year) Annual Reported Emissions for Reporting Period 2010**

Pollutant	Emissions (tons/year)
NO <sub>x</sub>	10.214
CO	6.056
VOC	2.106
PM	0.933
SO <sub>x</sub>	0.07

### **Toxic Air Contaminants Emissions (TAC) Annual Reported Emissions for Reporting Period 2010**

The Following TACs Were Reported	Emissions (lbs/yr)
Ammonia	2393
Benzene	7.938
Formaldehyde	19.611
Methyl Chloroform	10.265
Methylene Chloride	12
Nickel	0.034
PAHs	0.331

### **Health Risk from Toxic Air Contaminants**

The facility is subject to review by the Air Toxics Information and Assessment Act (AB2588). The AQMD is tracking the status of the facility under AB2588.

#### **8. Compliance History**

As noted, the facility has been in constant operation with a Title V permit since 2001. The facility has been subject to both self-reporting requirements and AQMD inspections. The facility has had no citizen complaints filed, Notices to Comply or Notices of Violation issued in the last two years. The facility is currently operating in compliance with all applicable rules and permit conditions.

#### **9. Compliance Certification**

By virtue of the Title V permit application and issuance of this Title V renewal permit, the reporting frequency for compliance certification for the facility shall be annual.