



FACILITY PERMIT TO OPERATE

**NASA JET PROPULSION LAB
4800 OAK GROVE DR
PASADENA, CA 91109**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

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FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

TABLE OF CONTENTS

Section	Description	Revision #	Date Issued
A	Facility Information	4	10/18/2011
B	RECLAIM Annual Emission Allocation	14	10/18/2011
C	Facility Plot Plan	TO BE DEVELOPED	
D	Facility Description and Equipment Specific Conditions	21	10/18/2011
E	Administrative Conditions	3	10/18/2011
F	RECLAIM Monitoring and Source Testing Requirements	2	10/18/2011
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	2	10/18/2011
H	Permit To Construct and Temporary Permit to Operate	9	03/01/2012
I	Compliance Plans & Schedules	2	10/18/2011
J	Air Toxics	2	10/18/2011
K	Title V Administration	4	10/18/2011
Appendix			
A	NOx and SOx Emitting Equipment Exempt From Written Permit Pursuant to Rule 219	2	10/18/2011
B	Rule Emission Limits	4	10/18/2011

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION EQUIPMENT					
System 1: BUILDING 150					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, CUMMINS, MODEL NO. QSB7-G3, DIESEL FUEL, WITH AFTERCOOLER, TURBOCHARGER, 250 BHP A/N: 509746 Permit to Construct Issued: 07/13/10	D165		NOX: PROCESS UNIT**	CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; NOX + ROG: 3 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.15 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	B61.1, B61.3, D12.2, E448.2, H23.9, K67.10
System 7: BUILDING 277					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, CATERPILLAR, MODEL NO. C18 DITA, DIESEL FUEL, WITH AFTERCOOLER, TURBOCHARGER, 900 BHP A/N: 510207 Permit to Construct Issued: 07/13/10	D166		NOX: PROCESS UNIT**	CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.15 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	B61.1, B61.3, D12.2, E448.2, H23.9, K67.10
Process 3: SURFACE COATING EQUIPMENT					
System 4: COATING OPERATION, BLDG. 18					

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: SURFACE COATING EQUIPMENT					
SPRAY COATING OPERATION, 6 FT. -9 IN. W. X 8 FT. - 0 IN. L. X 8 FT.- 0 IN. H. WITH 3-STAGE FILTER SYSTEM,, INCL. NINE HEPA FILTERS, 24" X 24" X 11.5", AND 5-HP EXHAUST FAN, WITH SPRAY BOOTH A/N: 526767 Permit to Construct Issued: 03/01/12	D38			PM: (9) [RULE 404, 2-7-1986]; VOC: (9) [RULE 1107, 11-9-2001; RULE 1107, 1-6-2006; RULE 1124, 9-21-2001; RULE 1145, 2-14-1997; RULE 1145, 12-4-2009; RULE 1171, 11-7-2003; RULE 1171, 5-1-2009]	A63.1, C6.3, D322.1, E71.6, E175.1, H23.13, K67.3, K67.7

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	Section H Page No.	Process	System
D38	2	3	4
D165	1	1	1
D166	1	1	7

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F1.1 The operator shall limit the material processed to no more than 1 ton(s) in any one year.

For the purpose of this condition, material processed shall be defined as the total of all non-ferrous metals melted at this facility.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1407, 7-8-1994]

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

F14.1 The operator shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

PROCESS CONDITIONS

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	109
VOC	District Rule	1164

[RULE 109, 5-2-2003; RULE 1164, 1-13-1995]

[Processes subject to this condition : 7]

SYSTEM CONDITIONS

S1.1 The operator shall limit the material processed to no more than 800 cubic feet per year.

For the purpose of this condition, material processed shall be defined as the total quantity of 100 percent Arsine used.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Systems subject to this condition : Process 7, System 1]

S1.2 The operator shall limit the material processed to no more than 400 cubic feet per year.

For the purpose of this condition, material processed shall be defined as the total quantity of 50 percent Arsine used.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Systems subject to this condition : Process 7, System 3]

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

DEVICE CONDITIONS

A. Emission Limits

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
VOC	Less than or equal to 2.25 LBS IN ANY ONE DAY

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D38]

B. Material/Fuel Type Limits

B61.1 The operator shall only use fuel oil containing the following specified compounds:

Compound	weight percent
Sulfur less than or equal to	0.05

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : D165, D166]

B61.3 The operator shall only use fuel oil containing the following specified compounds:

Compound	ppm by weight
Sulfur less than or equal to	15

[RULE 1470, 6-1-2007]

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D165, D166]

C. Throughput or Operating Parameter Limits

C6.3 The operator shall use this equipment in such a manner that the differential pressure being monitored, as indicated below, does not exceed 0.7 inches water column.

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the 3-stage filter media.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : D38]

D. Monitoring/Testing Requirements

D12.2 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

**[RULE 1110.2, 7-9-2010; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;
RULE 1470, 6-1-2007; RULE 2012, 5-6-2005]**

[Devices subject to this condition : D165, D166]

D322.1 The operator shall perform a weekly inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D38]

E. Equipment Operation/Construction Requirements

E71.6 The operator shall not turn off the exhaust fan this equipment until 30 seconds after spraying operations have ceased when coatings containing Hexavalent chrome have been sprayed..

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[RULE 1469.1, 3-4-2005]

[Devices subject to this condition : D38]

E175.1 The operator shall not use this equipment unless all exhaust air passes through the following:

3-stage dry particulate filters that has a single stage of HEPA filters individually DOP tested (or equivalent) with 0.3 micron particulates and certified to have a control efficiency of not less than 99.97%, as required by AQMD Rule 1469.1

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition : D38]

E448.2 The operator shall comply with the following requirements:

The engine shall not be operated more than 200 hours in any one year, which includes 50 hours in any one year for maintenance and testing.

Operation beyond the allotted time for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage.

In the event as described in the paragraph above, the engine shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

This engine shall not be used as part of an interruptible service contract in which a facility receives a payment or reduced rates in return for reducing electric load on the grid when requested by the utility or the grid operator.

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[RULE 1110.2, 7-9-2010; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;**
 RULE 1470, 6-1-2007; **RULE 2012, 5-6-2005]**

[Devices subject to this condition : D165, D166]

H. Applicable Rules

H23.9 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Sulfur compounds	District Rule	431.2
PM	District Rule	1470

[RULE 1470, 6-1-2007; **RULE 431.2, 5-4-1990;** RULE 431.2, 9-15-2000]

[Devices subject to this condition : D165, D166]

H23.13 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	109
PM	District Rule	481
Chromium, Hexavalent	District Rule	1469.1

[Devices subject to this condition : D38]

K. Record Keeping/Reporting

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Name of person conducting inspection and maintenance of the filter media.

Date, time and results of the inspection.

Date, time and description of repairs made.

Weekly record of pressure drop across the filter media.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D38]

K67.7 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Quantity of coatings used

Daily and calendar monthly VOC emissions in pounds

VOC content as applied (including water and exempt compounds)

[RULE 109, 5-2-2003; RULE 1124, 9-21-2001; RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : D38]

K67.10 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

An engine operating log shall be kept and maintained on file to record when this engine is started manually. The log shall list the date of operation, the timer reading in hours at the beginning and end of operation and the reason for operation.

By January 15th of each year, the operator shall total and record the total hours of operation (including hours for both manual operation and automatic operation) for the previous calendar year.

All records required by this permit shall be kept in a format that is acceptable to the District, shall be retained on the premises for at least five years and shall be made available to any District representative upon request.

[RULE 1110.2, 7-9-2010; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;**
RULE 1470, 6-1-2007; **RULE 2012, 5-6-2005]**

[Devices subject to this condition : D165, D166]