

## **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

By \_\_\_\_\_  
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## FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB

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### 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
<b>Process 1: INTERNAL COMBUSTION EQUIPMENT</b>					
<b>System 1: BUILDING 150</b>					
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: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]	B61.1, B61.3, D12.2, E448.2, H23.9, K67.10
<b>System 7: BUILDING 277</b>					
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: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]	B61.1, B61.3, D12.2, E448.2, H23.9, K67.10

\* (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.

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**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.**

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## SECTION H: DEVICE ID INDEX

<b>Device Index For Section H</b>			
<b>Device ID</b>	<b>Section H Page No.</b>	<b>Process</b>	<b>System</b>
D165	1	1	1
D166	1	1	7

## **FACILITY PERMIT TO OPERATE NASA JET PROPULSION LAB**

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**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]

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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]

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

#### DEVICE CONDITIONS

##### B. Material/Fuel Type Limits

B61.1 The operator shall not 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 not use fuel oil containing the following specified compounds:

Compound	ppm by weight
Sulfur less than or equal to	15

[RULE 1470, 6-1-2007]

[Devices subject to this condition : D165, D166]

##### 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, 2-1-2008; **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]

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

#### E. Equipment Operation/Construction Requirements

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.

[RULE 1110.2, 2-1-2008; **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

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

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]

#### **K. Record Keeping/Reporting**

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

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 three years and shall be made available to any District representative upon request.

[RULE 1110.2, 2-1-2008; **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]