



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

January 20, 2010

Uve Sillat
Environmental Engineer
Southern California Edison
P.O. Box 800
Rosemead, CA 90704

SUBJECT: Barre (ID# 51475), CAL-ISO Testing Permit Modifications

Dear Mr. Sillat:

Enclosed is the revised Title V Facility Permits for equipment located at 8662 Cerritos Ave, Stanton, CA 90680, which reflect the requested permit condition modifications to the gas turbine. The equipment and revised conditions are included in Section H of the permit. The corresponding application numbers are summarized in the table below:

Application	Description	Device ID#
499009	Gas turbine	D1
498961	Title V	NA

In accordance with Rule 3005(e), AQMD sent the proposed permit to EPA on October 30, 2009 for the 45 day review and comment period. The review period ended on December 14, 2009. No comments were received.

Since the draft permit was issued, several conditions were revised based on SCE's comments. Language was added to conditions A99.1 and A99.2 to clarify that the NO_x and CO emission limits for the CAL-ISO testing include emissions during the start up and shutdown of the turbine. Also, language was added to condition 82.1 to reflect that the CEMS calculates emissions on a 1-minute basis, and that a default O₂ concentration of 19% should be used in the calculation of NO_x and CO mass emissions whenever the measure O₂ concentration is over 19%.

Please review the revised permit carefully. Insert the enclosed sections into your Facility Permit and discard the earlier versions. Questions concerning changes to your permit should be directed to Mr. Chris Perri at (909) 396-2696.

Sincerely,

Michael D. Mills
Senior Manager
General Commercial and Energy Team
Engineering and Compliance

Attachment

Cc: Gerardo Rios, EPA (with attachment)
Melesio Hernandez, SCAQMD Compliance
Energy Unit Files



FACILITY PERMIT TO OPERATE

**SO CAL EDISON CO
8662 CERRITOS AVE
STANTON, CA 90680**

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 *Milad Milly* for
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance



FACILITY PERMIT TO OPERATE SO CAL EDISON CO

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**FACILITY PERMIT TO OPERATE
SO CAL EDISON CO**

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 POWER GENERATION					
System 1 GAS TURBINE					
GAS TURBINE, PEAKING UNIT, UNIT NO. 1, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000PC SPRINT, SIMPLE CYCLE, HEAT INPUT REFERENCED AT 88 DEGREES FAHRENHEIT, WATER INJECTION, 522 MMBTU/HR WITH A/N: 499009 Permit to Construct Issued: 01/06/10	D1	C3 C4 S5		CO: 6 PPMV NATURAL GAS (4) [RULE 407, 4-2-1982]; CO: 2000 PPMV (5) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NOX: 2.5 PPMV NATURAL GAS (4) [40CFR 60 Subpart KKKK, 7-6-2006]; NOX: 25 PPMV NATURAL GAS (8) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; PM: 0.01 GRAINS/SCF (5B) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997], SOX 0.06 LBS/MMBTU (8) [40CFR 60 Subpart KKKK, 7-6-2006]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.1, A63.2, A63.3, A63.4, A63.5, A99.1, A99.2, A195.1, A195.2, A195.3, A327.1, C1.1, C1.2, C1.3, D12.1, D29.1, D29.2, D29.3, D82.1, E57.1, E193.1, H23.1, K40.1, K67.1
GENERATOR, 49 MW CO OXIDATION CATALYST, BASE, 80 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 462015 Permit to Construct Issued: 04/03/07	C3	D1			E193.1

* (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 SO CAL EDISON CO

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 : POWER GENERATION					
SELECTIVE CATALYTIC REDUCTION, CORMETECH CMHT-21, WITH 547 CUBIC FEET OF TOTAL CATALYST VOLUME. WIDTH: 18 FT, HEIGHT: 25 FT 9 IN, LENGTH: 2 FT 6 IN WITH A/N: 462015 Permit to Construct Issued: 04/03/07 AMMONIA INJECTION	C4	D1		NH3: 5 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.4, D12.2, D12.3, D12.4, E179.1, E179.2, E193.1
STACK, HEIGHT: 80 FT, DIAMETER: 13 FT A/N: 499009 Permit to Construct Issued: 01/06/10	S5	D1			
System 2 : EMERGENCY IC ENGINE					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, NATURAL GAS, WAUKESHA, MODEL VGF36 GL/GLD, TURBOCHARGER, 924 BHP A/N: 479360 Permit to Construct Issued: 12/10/08	D6			CO: 224 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; NOX: 107 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]; VOC: 111 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A63.3, A63.5, C1.4, D12.5, D29.4, E162.1, E193.1, E193.2, K67.2
System 3 : INORGANIC CHEMICAL STORAGE					
STORAGE TANK, 19% AQUEOUS AMMONIA, HORIZONTAL, 10500 GALS A/N: 462012 Permit to Construct Issued: 04/03/07	D11				C157.1, E144.1, E193.1

- * (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
SO CAL EDISON CO**

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
SO CAL EDISON CO**

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	Section H Page No.	Process	System
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C4	2	1	1
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FACILITY PERMIT TO OPERATE SO CAL EDISON CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

FACILITY CONDITIONS

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 diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 9-15-2000]

F24.1 Accidental release prevention requirements of Section 112(r)(7):

a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).

b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

[40CFR 68 - Accidental Release Prevention, 5-24-1996]

DEVICE CONDITIONS

A. Emission Limits



**FACILITY PERMIT TO OPERATE
SO CAL EDISON CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 1584 LBS IN ANY ONE MONTH
PM10	Less than 1499 LBS IN ANY ONE MONTH
CO	Less than 2068 LBS IN ANY ONE MONTH
SOX	Less than 89 LBS IN ANY ONE MONTH
VOC	Less than 398 LBS IN ANY ONE MONTH

The operator shall calculate the emission limit(s) by using fuel use data and the following emission factors: VOC: 2.95 lbs/mmcf, PM10: 10.63 lbs/mmcf, and SOx: 0.63 lbs/mmcf.

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using fuel usage and a factor of 14.12 lbs/mmcf during normal operations, 8.74 lbs/hr during any start up hour, and 7.86 lbs/hr during any shutdown hour. The operator shall use the appropriate missing data procedures if NOx data is not available.

If a CEMS calibration occurs within 60 minutes of a start up, NOx emissions for the calibration period shall be calculated using the actual duration of the calibration in minutes times a factor of 0.0802 lb/min, and shall only occur when NOx emissions are at or below BACT levels.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A63.2 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 6783 LBS IN ANY ONE YEAR



**FACILITY PERMIT TO OPERATE
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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:

PM10	Less than 5454 LBS IN ANY ONE YEAR
CO	Less than 8885 LBS IN ANY ONE YEAR
SOX	Less than 324 LBS IN ANY ONE YEAR
VOC	Less than 1702 LBS IN ANY ONE YEAR

The operator shall calculate the emission limit(s) by using fuel use data and the following emission factors for the turbine: During commissioning with no control- NOx: 245.71 lbs/mmcf; CO: 115.57 lbs/mmcf, VOC: 11.17 lbs/mmcf; PM10: 10.63 lbs/mmcf, and SOx: 0.63 lb/mmcf . During commissioning with water injection- NOx: 100.7 lbs/mmcf, all other factors remain the same. During normal operation- VOC: 3.07 lbs/mmcf, PM10: 10.63 lbs/mmcf, and SOx: 0.63 lbs/mmcf.

The operator shall calculate the annual emission limit(s) by using hourly operation data and the following emission factors for the engine: NOx: 2.55 lbs/hr, CO: 3.24 lbs/hr, VOC: 0.92 lbs/hr, PM10: 0.25 lbs/hr, SOx: 0.0038 lbs/hr.

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using fuel usage and a factor of 14.12 lbs/mmcf during normal operations, 8.74 lbs/hr during any start up hour, and 7.86 lbs/hr during any shutdown hour. The operator shall use the appropriate missing data procedures if NOx data is not available.

If a CEMS calibration occurs within 60 minutes of a start up, NOx emissions for the calibration period shall be calculated using the actual duration of the calibration in minutes times a factor of 0.0802 lb/min, and shall only occur when NOx emissions are at or below BACT levels.

For the purposes of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month. The limits apply to the total emissions from the turbine plus the engine. THIS CONDITION APPLIES DURING THE 1ST 12 MONTHS OF OPERATION ONLY.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1, D6]



**FACILITY PERMIT TO OPERATE
SO CAL EDISON CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A63.3 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 6428 LBS IN ANY ONE YEAR
PM10	Less than 5219 LBS IN ANY ONE YEAR
CO	Less than 7709 LBS IN ANY ONE YEAR
SOX	Less than 308 LBS IN ANY ONE YEAR
VOC	Less than 1525 LBS IN ANY ONE YEAR

The operator shall calculate the emission limit(s) by using fuel use data and the following emission factors for the turbine: VOC: 2.95 lbs/mmcf, PM10: 10.63 lbs/mmcf, and SOx: 0.63 lbs/mmcf.

The operator shall calculate the emission limit(s) by using hourly operation data and the following emission factors for the engine: NOx: 2.55 lbs/hr, CO: 3.24 lbs/hr, VOC: 0.92 lbs/hr, PM10: 0.25 lbs/hr, SOx: 0.0038 lbs/hr.

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If CO CEMS data is not available, CO emissions shall be calculated using fuel usage and a factor of 14.12 lbs/mmcf during normal operations, 8.74 lbs/hr during any start up hour, and 7.86 lbs/hr during any shutdown hour. The operator shall use the appropriate missing data procedures if NOx data is not available.

If a CEMS calibration occurs within 60 minutes of a start up, NOx emissions for the calibration period shall be calculated using the actual duration of the calibration in minutes times a factor of 0.0802 lb/min, and shall only occur when NOx emissions are at or below BACT levels.

For the purposes of this condition, the yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month. The limits apply to the total emissions from the turbine plus the engine. THIS CONDITION APPLIES AFTER THE 1st 12 MONTHS OF OPERATION.



**FACILITY PERMIT TO OPERATE
SO CAL EDISON CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1; D6]

A63.4 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 2867 LBS IN ANY ONE MONTH
PM10	Less than 1499 LBS IN ANY ONE MONTH
CO	Less than 3277 LBS IN ANY ONE MONTH
SOX	Less than 89 LBS IN ANY ONE MONTH
VOC	Less than 540 LBS IN ANY ONE MONTH

The operator shall calculate the emission limit(s) by using fuel use data and the following emission factors: During commissioning with no control- NOx: 245.71 lbs/mmcf; CO: 115.57 lbs/mmcf; VOC: 11.17 lbs/mmcf; PM10: 10.63 lbs/mmcf, and SOx: 0.63 lb/mmcf . During commissioning with water injection- NOx: 100.7 lbs/mmcf, all other factors remain the same. During normal operation- VOC: 3.07 lbs/mmcf, PM10: 10.63 lbs/mmcf, and SOx: 0.63 lbs/mmcf. THIS CONDITION APPLIES DURING THE 1ST 12 MONTHS OF OPERATION ONLY.

Compliance with the NOx and CO emission limits shall be verified through CEMS data. If NOx and CO CEMS data is not available, NOx and CO emissions shall be calculated using fuel usage and the following factors- NOx: 10.07 lb/mmcf and CO: 14.75 lbs/mmcf during normal operations, and NOx: 7.74 lbs/start, 6.53 lbs/shutdown, CO: 8.74 lbs/start, 7.86 lbs/shutdown.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D1]

A63.5 The operator shall limit emissions from this equipment as follows:



**FACILITY PERMIT TO OPERATE
SO CAL EDISON CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

CONTAMINANT	EMISSIONS LIMIT
NOX	Less than 55 LBS IN ANY ONE DAY

The purpose of this condition is to ensure that the facility emissions are below the CEQA thresholds, and the limit is based on the total emissions from the turbine and the black start generator.

The 55 lbs/day limit shall not apply when the unit undergoes CAL-ISO required black start testing, which shall not occur more than once per 12 month period. During CAL-ISO required black start testing the daily total NOx from all operations shall not exceed 90 lbs/day

[RULE 212, 12-7-1995; RULE 212, 11-14-1997]

[Devices subject to this condition : D1, D6]

A99.1 The 2.5 PPM NOX emission limit(s) shall not apply during commissioning, start-up, shutdown, an emergency electrical grid system blackout when the turbine is used to start another major generating station, and during cal-iso required testing. commissioning shall not exceed 25 hrs total, with no more than 5 hrs uncontrolled and no more than 20 hrs with water injection. each start-up shall not exceed 15 min. each shutdown shall not exceed 10 min. There shall be no more than 60 start ups/yr in the first year of operation, and 200 start-ups/yr thereafter.



FACILITY PERMIT TO OPERATE SO CAL EDISON CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

NOx emissions for the hour which includes a start shall not exceed 10.52 lbs, and for the hour which includes a shutdown 6.53 lbs.

In the case of a start during an emergency electrical grid system blackout, total NOx shall not exceed 28.23 lbs/hr.

In case of a turbine shutdown which occurs less than 75 minutes from a start up, the emissions calculated for the shutdown shall not include any of the first 15 minutes of the start up, and the emissions calculated for the start up shall not include any of the last 10 minutes of the shutdown.

A shutdown is defined as a reduction in turbine load ending in a period of zero fuel flow. The hour which includes a shutdown is defined as the 60 minutes counted back from the period of zero fuel flow.

During CAL-ISO required testing, NOx emissions shall not exceed 40 lbs/hr, including the start up and shutdown hours. In any 12 month period, there shall be no more than 1 completed successful test, and no more than 2 hours of total test time (including any aborted test time)

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A99.2

The 6.0 PPM CO emission limit(s) shall not apply during commissioning, start-up, shutdown, an emergency electrical grid system blackout when the turbine is used to start another major generating station, and during cal-iso required testing. commissioning shall not exceed 25 hrs total, with no more than 5 hrs uncontrolled and no more than 20 hrs with water injection. each start-up shall not exceed 15 min. each shutdown shall not exceed 10 min. there shall be no more than 60 start ups/yr in the 1st year of operation, and 200 start-ups/ yr thereafter.



FACILITY PERMIT TO OPERATE SO CAL EDISON CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

In the case of a start during an emergency electrical grid system blackout, total NO_x shall not exceed 28.23 lbs/hr.

In case of a turbine shutdown which occurs less than 75 minutes from a start up, the emissions calculated for the shutdown shall not include any of the first 15 minutes of the start up, and the emissions calculated for the start up shall not include any of the last 10 minutes of the shutdown.

A shutdown is defined as a reduction in turbine load ending in a period of zero fuel flow. The hour which includes a shutdown is defined as the 60 minutes counted back from the period of zero fuel flow.

During CAL-ISO required testing, CO emissions shall not exceed 5 lbs/hr, including the start up and shutdown hours. In any 12 month period, there shall be no more than 1 completed successful test, and no more than 2 hours of total test time (including any aborted test time)

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A195 .1 The 2.5 PPM NO_x emission limit(s) is averaged over 60 minutes at 15 percent O₂, dry.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A195 .2 The 6.0 PPM CO emission limit(s) is averaged over 60 minutes at 15 percent O₂, dry.



**FACILITY PERMIT TO OPERATE
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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:

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A195 .3 The 2.0 PPM VOC emission limit(s) is averaged over 60 minutes at 15 percent O₂, dry.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(1)-Modeling, 5-10-1996; RULE 1303(b)(1)-Modeling, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

A195 .4 The 5 PPMV NH₃ emission limit(s) is averaged over over 60 minutes at 15% O₂, dry basis.

The operator shall calculate and continuously record the NH₃ slip concentration using the following:

$NH_3 \text{ (ppmv)} = [a-b*c/1E+06]*1E+06/b$, where LIST

The operator shall install and maintain a NO_x analyzer to measure the SCR inlet NO_x ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months. The NO_x analyzer shall be installed and operated within 90 days of initial start-up.

The operator shall use the above described method or another alternative method approved by the Executive Officer. The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C4]



FACILITY PERMIT TO OPERATE SO CAL EDISON CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A327 .1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[RULE 475, 10-8-1976; RULE 475, 8-7-1978]

[Devices subject to this condition : D1]

C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the fuel usage to no more than 4.70 MM cubic feet per day.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

C1.2 The operator shall limit the fuel usage to no more than 513 MM cubic feet per year.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available upon AQMD request.

For the purpose of this condition, the yearly fuel use limit shall apply only during the 1st 12 months of operation.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

C1.3 The operator shall limit the fuel usage to no more than 489 MM cubic feet per year.



FACILITY PERMIT TO OPERATE SO CAL EDISON CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available upon AQMD request.

For the purpose of this condition, the yearly fuel use limit shall apply after the 1st 12 months of operation. The yearly emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

C1.4 The operator shall limit the operating time to no more than 90 hour(s) in any one year.

The 90 hours per year limit may include up to 64 hours per year operating time to maintain engine readiness or testing.

[RULE 1110.2, 6-3-2005; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;
RULE 1401, 3-4-2005]

[Devices subject to this condition : D6]

C157.1 The operator shall install and maintain a pressure relief valve set at 50 psig.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D11]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.



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

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[~~RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002~~]

[Devices subject to this condition : D1]

D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[~~RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002~~]

[Devices subject to this condition : C4]

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[~~RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002~~]

[Devices subject to this condition : C4]

D12.4 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

[~~RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002~~]

[Devices subject to this condition : C4]



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

D12.5 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, 6-3-2005; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996;**
RULE 1401, 3-4-2005]

[Devices subject to this condition : D6]

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
SOX emissions	Approved District method	District-approved averaging time	Fuel Sample
VOC	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment



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

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]



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

[Devices subject to this condition : D1]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 45 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test(s) shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D1]

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	Approved District method	District-approved averaging time	Fuel Sample
VOC emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment



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

PM10 emissions		Approved District method		District-approved averaging time		Outlet of the SCR serving this equipment
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The operator shall comply with the terms and conditions set forth below:

The test(s) shall be conducted at least once every three years.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at 100 percent load.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute; b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA Method TO-12 (with pre concentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.



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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

D29.4 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	1 hour	Outlet
CO emissions	District method 100.1	1 hour	Outlet
VOC emissions	Approved District method	1 hour	Outlet

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the engine output in hp.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at a load of 100 percent.

The test shall be conducted for compliance verification of the NOx, CO, and VOC BACT limit.



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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D6]

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

NOx and CO concentration in ppmv.

Concentrations shall be corrected to 15 percent oxygen on a dry basis. The CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD.

The CEMS will convert the actual NOx and CO concentrations to mass emission rates (lbs/hr) and record the hourly emission rates on a continuous basis.

The CEMS shall be installed and operated to measure the NOx and CO concentration over a 15 minute, or more frequent, averaging time period. The CEMS shall convert the actual CO concentrations to mass emission rates (lbs/hr) using the equation below and record the hourly emission rates on a continuous basis.

CO Emission Rate, lbs/hr = $K * C_{CO} * F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g * HHV) / 10E6]$,
where

LIST

When the measured O2 concentration is > 19 percent, a default of 19 percent O2 shall be used in the calculation of NOx and CO mass emissions

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 218, 8-7-1981; RULE 218, 5-14-1999]

[Devices subject to this condition : D1]



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

E . Equipment Operation/Construction Requirements.

E57.1 The operator shall vent this equipment to the SCR and oxidation catalyst whenever the turbine is in operation.

Ammonia injection shall commence once the exhaust temperature into the SCR catalyst has reached 540 degrees F

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002**]

[Devices subject to this condition : D1]

E144 .1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D11]

E162 .1 The operator shall use this equipment only during utility failure periods, except for maintenance purposes.

[**RULE 1110.2, 6-3-2005; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1401, 3-4-2005**]

[Devices subject to this condition : D6]

E179 .1 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number D 12- 2

Condition Number D 12- 3

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]



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

[Devices subject to this condition : C4]

E179 .2 For the purpose of the following condition number(s), continuous monitoring shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number D 12- 4

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C4]

E193 .1 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the Negative Declaration prepared for this project (CEQA State Clearinghouse No. 2006121113).

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D1, C3, C4, D6, D11]

E193 .2 The operator shall operate and maintain this equipment according to the following specifications:

The TA Luft carburetor settings shall be maintained at all times.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D6]

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
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The operator shall comply with the terms and conditions set forth below:

SOX		40CFR60, SUBPART		KKKK
NOX		40CFR60, SUBPART		KKKK

[40CFR 60 Subpart KKKK, 7-6-2006]

[Devices subject to this condition : D1]

K. Record Keeping/Reporting

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of (ppmv) corrected to 15 percent oxygen (dry basis). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D1]

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):



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

Commissioning hours and type of control and fuel use

Date and time of each start-up and shutdown

Natural gas fuel use after the commissioning period and prior to CEMS certification

CEMS minute data during start up and shutdown

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D1]

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Date of operation, the elapsed time, in hours, and the reason for operation. Records shall be kept and maintained on file for a minimum of two years and made available to district personnel upon request.

[**RULE 1110.2, 6-3-2005; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1401, 3-4-2005**]

[Devices subject to this condition : D6]