South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

June 21, 2012

Mr. Gerardo Rios
Chief – Permits Office
U. S. EPA, Region IX
75 Hawthorne Street, Air 3
San Francisco, CA 94105

Subject: El Segundo Power, LLC (ID 115663) – Change of Conditions

Dear Mr. Rios:

El Segundo Power, LLC has proposed to revise its Title V permit by the revision of the ammonia injection rate and the removal of the venturi scrubber from the ammonia storage tank. This proposed permit revision is considered as a "minor permit revision" to their Title V permit. Attached for your review is the evaluation and Section H of the Facility Permit for the proposed revision. With your receipt of the proposed revision today, we will note that the EPA 45-day review period begins on June 21, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Mr. Kenneth L. Coats (909) 396-2527.

Very truly yours,

Brian L. Yeh
Senior Manager
Mechanical, Chemical, and Public Services

cc: George L. Piantka, El Segundo Power, LLC

BLY:AYL:JTY:KLC
Attachments

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

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					
System 2: GAS TURBINE POWER GENERATION					

* (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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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, UNIT NO.5, NATURAL GAS, SIEMENS, MODEL SGT6-5000F RAPID-RESPONSE, COMBINED CYCLE, 2,096 MMBTU/HR AT 78 DEGREES F, WITH DRY LOW-NOX COMBUSTORS WITH A/N: 470652 Permit to Construct Issued: 07/13/10	D67	C75	NOX: MAJOR SOURCE**	**CO**: 2 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **CO**: 2000 PPMV NATURAL GAS (5) **[RULE 407, 4-2-1982]**; **NOX**: 2 PPMV NATURAL GAS (4) **[RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002;* RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **NOX**: 8.66 LBS/MMSCF NATURAL GAS (1A) **[RULE 2012, 5-6-2005]**; **NOX**: 15 PPMV NATURAL GAS (8) **[40CFR 60 Subpart KKKK, 7-6-2006]**; **NOX**: 16.55 LBS/MMSCF NATURAL GAS (1) **[RULE 2012, 5-6-2005]**; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5) **[RULE 475, 10-8-1976;** *RULE 475, 8-7-1978]*; **PM10**: 0.1 GRAINS/SCF NATURAL GAS (5A) **[RULE 409, 8-7-1981;** RULE 410, 10-6-2006]; **PM10**: 11 LBS/HR NATURAL GAS (5B) **[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 NATURAL GAS (8) **[40CFR**	A63.2, A99.7, A99.8, A99.9, A99.10, A99.11, A195.8, A195.9, A195.10, A327.1, A433.1, B61.2, C1.6, D12.10, D29.7, D29.8, D29.9, D82.4, D82.5, E193.2, E193.3, I296.1, K40.4, K67.5

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(5) (5A) (5B) Denotes command and control emission limit
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(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

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FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

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					
GENERATOR, HEAT RECOVERY STEAM UNFIRED TURBINE, STEAM, 67.7 MW GENERATOR, 219 MW				**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*]	
CO OXIDATION CATALYST, UNIT NO. 5, BASF, 290 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 470653 Permit to Construct Issued: 07/13/10	C75	D67 C76			
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 5, CORMETECH, MODEL CM21HT, WITH 2,050 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 25 FT ; HEIGHT: 70 FT ; LENGTH: 24 FT 3 IN WITH A/N: AMMONIA INJECTION, GRID	C76	C75 S78		**NH3**: 5 PPMV NATURAL GAS (4) **[RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.11, D12.11, D12.12, D12.13, E179.5, E179.6
STACK, NO. 5, HEIGHT: 210 FT , DIAMETER: 20 FT 11 IN A/N: 470652 Permit to Construct Issued: 07/13/10	S78	C76			

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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:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, UNIT NO.7, NATURAL GAS, SIEMENS, MODEL SGT6-5000F RAPID-RESPONSE, COMBINED CYCLE, 2,096 MMBTU/HR AT 78 DEGREES F, WITH DRY LOW-NOX COMBUSTORS WITH A/N: 470656 Permit to Construct Issued: 07/13/10	D68	C79	NOX: MAJOR SOURCE**	**CO**: 2 PPMV NATURAL GAS (4) **[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]**; **CO**: 2000 PPMV NATURAL GAS (5) **[RULE 407, 4-2-1982]**, **NOX**: 2 PPMV NATURAL GAS (4) **[RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002;* RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; **NOX** 8.66 LBS/MMSCF NATURAL GAS (1A) **[RULE 2012, 5-6-2005]**; **NOX** 15 PPMV NATURAL GAS (8) **[40CFR 60 Subpart KKKK, 7-6-2006]**; **NOX**: 16.55 LBS/MMSCF NATURAL GAS (1) **[RULE 2012, 5-6-2005]**; **PM10**: 0.01 GRAINS/SCF NATURAL GAS (5) **[RULE 475, 10-8-1976;** *RULE 475, 8-7-1978]*; **PM10**: 0.1 GRAINS/SCF NATURAL GAS (5A) **[RULE 409, 8-7-1981]**; **PM10**: 11 LBS/HR NATURAL GAS (5B) **[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 NATURAL GAS (8) **[40CFR 60 Subpart KKKK, 7-6-2006]**; **VOC**: 2	A63.2, A99.7, A99.8, A99.9, A99.10, A99.11, A195.8, A195.9, A195.10, A327.1, A433.1, B61.2, C1.6, D12.10, D29.7, D29.8, D29.9, D82.4, D82.5, E193.2, E193.3, I296.1, K40.4, K67.5

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(5) (5A) (5B) Denotes command and control emission limit
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(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
EL SEGUNDO ENERGY CENTER

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					
GENERATOR, HEAT RECOVERY STEAM, UNFIRED TURBINE, STEAM, 67.7 MW GENERATOR, 219 MW				PPMV NATURAL GAS (4) **[RULE 1303(a)(1)-BACT, 5-10-1996;** *RULE 1303(a)(1) -BACT, 12-6-2002*]	
CO OXIDATION CATALYST, UNIT NO. 7, BASF, 290 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 470654 Permit to Construct Issued: 07/13/10	C79	D68 C80			
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 7, CORMETECH, MODEL CM21HT, WITH 2,050 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 25 FT ; HEIGHT: 70 FT ; LENGTH: 24 FT 3 IN WITH A/N: AMMONIA INJECTION, GRID	C80	C79 S82		**NH3**: 5 PPMV NATURAL GAS (4) **[RULE 1303(a)(1) -BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.11, D12.11, D12.12, D12.13, E179.5, E179.6
STACK, NO. 7, HEIGHT: 210 FT ; DIAMETER: 20 FT 11 IN A/N: 470656 Permit to Construct Issued: 07/13/10	S82	C80			
Process 2: EXTERNAL COMBUSTION					
System 2: BOILER, POWER GENERATION					

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(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
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(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc)
(9) See App B for Emission Limits
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FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

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 2: EXTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NORTH AND SOUTH DUCTS, VANADIUM/TITANIUM CATALYST BED, WITH 4058 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 28 FT 6 IN; HEIGHT: 17 FT ; LENGTH: 68 FT WITH A/N: 464316 Permit to Construct Issued: 03/15/07	C31	D13		**NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996;** *RULE 1303(a)(1)-BACT, 12-6-2002*]	A195.4, D12.2, D12.3, D28.1, E73.2, E179.1, K48.2, K67.3
AMMONIA INJECTION, GRID, WITH 300 NOZZLES	C32				
Process 5: INORGANIC CHEMICAL STORAGE					
STORAGE TANK, UNDERGROUND, TK-001, 29% AQUEOUS AMMONIA, CARBON STEEL, DOUBLE WALLED, WITH 3 TRANSFER PUMPS AND A PRV SET AT 50 PSIG, 20000 GALS, DIAMETER: 10 FT 2 IN; LENGTH: 37 FT 10 IN A/N:	D30				C157.1, E144.2

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(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
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(5) (5A) (5B) Denotes command and control emission limit
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(9) See App B for Emission Limits
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** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

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
EL SEGUNDO ENERGY CENTER

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	**Section H Page No.**	**Process**	**System**
D30	6	5	0
C31	6	2	2
C32	6	2	2
D67	3	1	2
D68	5	1	2
C75	3	1	2
C76	3	1	2
S78	3	1	2
C79	5	1	2
C80	5	1	2
S82	5	1	2

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

FACILITY CONDITIONS

F2.1 The operator shall limit emissions from this facility as follows:

CONTAMINANT	EMISSIONS LIMIT
PM	Less than 100 TONS IN ANY ONE YEAR

For the purpose of this condition, the PM emission limit shall be applicable to particulate matter with aerodynamic diameter less than 2.5 microns

For the purpose of this condition any one year 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.

[40CFR 51 Subpart S, 3-8-2007]

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

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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

[RULE 431.2, 9-15-2000]

F16.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

purchase records of fuel oil and sulfur content of the fuel

[RULE 3004(a)(4)-Periodic Monitoring, 8-11-1995; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

F18.1 Acid Rain SO2 Allowance Allocation for affected units are as follows:

Device ID	Boiler ID	Contaminant	Tons in any year
7	Boiler No. 1	SO2	437
9	Boiler No. 2	SO2	90
11	Boiler No. 3	SO2	182
13	Boiler No. 4	SO2	370

a). The allowance allocation(s) shall apply to calendar years 2000 through 2009.

b). The number of allowances allocated to Phase II affected units by U.S. EPA may change in a 1998 revision to 40CFR73 Tables 2,3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO2 allowance allocations identified in this permit (see 40 CFR 72.84)

[40CFR 73 Subpart B, 1-11-1993]

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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

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

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 6935 LBS IN ANY ONE MONTH
SOX	Less than or equal to 1065 LBS IN ANY ONE MONTH
VOC	Less than or equal to 4930 LBS IN ANY ONE MONTH

The operator shall calculate the monthly emissions for VOC, PM10, and SOx, using the equation below and the following emission factors: VOC 2.93 lb/mmcf; PM10 4.66 lb/mmcf; and SOx 0.72 lb/mmcf

Monthly Emissions, lb/month = X * (EF)

where X = monthly fuel usage, mmcf/month; and EF = emission factor indicated above

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

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 : D67, D68]

A99.7 The 2.0 PPM NOX emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 415 gas turbine operating hours. Start-up shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

A gas turbine operating hour during the commissioning period consists of 60 operating minutes. An operating minute occurs when the gas turbine fuel flow during that minute is greater than zero.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]

[Devices subject to this condition : D67, D68]

A99.8 The 2.0 PPM CO emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 415 gas turbine operating hours. Start-up shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

A gas turbine operating hour during the commissioning period consists of 60 operating minutes. An operating minute occurs when the gas turbine fuel flow during that minute is greater than zero.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A99.9 The 2.0 PPM VOC emission limit(s) shall not apply during turbine commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 415 gas turbine operating hours. Start-up shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

A gas turbine operating hour during the commissioning period consists of 60 operating minutes. An operating minute occurs when the gas turbine fuel flow during that minute is greater than zero.

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

[Devices subject to this condition : D67, D68]

A99.10 The 16.55 LBS/MMCF NOX emission limit(s) shall only apply during the interim reporting period during initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D67, D68]

A99.11 The 8.66 LBS/MMCF NOX emission limit(s) shall only apply during the interim reporting period after initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D67, D68]

A195.4 The 20 PPMV NH3 emission limit(s) is averaged over 60 minutes at 3 percent oxygen, dry. This limit shall be determined and measured in the combined exhaust from the North and South ducts.

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

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:

[Devices subject to this condition : C31]

A195.8 The 2.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

A195.9 The 2.0 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[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 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

A195.10 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[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]

[Devices subject to this condition : D67, D68]

A195.11 The 5 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis. The operator shall calculate and continuously record the NH3 slip concentration using the following:.

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:

NH3 (ppmv) = [a-b*c/1EE+06]*1EE+06/b; where

a = NH3 injection rate (lb/hr)/17 lb/lb-mol

b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol

c = change in measured NOx across the SCR, (ppmvd at 15 percent O2)

The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The NOx 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 refernce method for the determination of ammonia.

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 2012, 5-6-2005**]

[Devices subject to this condition : C76, C80]

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 : D67, D68]

A433.1 The operator shall comply at all times with the 2.0 ppm 1-hour BACT limit for NOx, except as defined in condition A99.7 and for the following scenario:

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:

Operating Scenario	Maximum Hourly Emission Limit	Operational Limit
Start-up	112 lb/hr	NOx emissions not to exceed 112 lbs total per start-up per turbine. Each turbine shall be limited to 200 start-ups per year, with each start-up not to exceed 60 minutes

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]

[Devices subject to this condition : D67, D68]

B. Material/Fuel Type Limits

B61.2 The operator shall not use natural gas containing the following specified compounds:

Compound	Range	grain per 100 scf
H2S	greater than	0.25

This concentration limit is an annual average based on monthly samples of natural gas composition or gas supplier documentation. The gaseous fuel sample shall be tested using District Method 307-91 for total sulfur calculated as H2S

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

[Devices subject to this condition : D67, D68]

C. Throughput or Operating Parameter Limits

C1.6 The operator shall limit the fuel usage to no more than 1500 MM cubic feet in any one calendar month.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine.

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 : D67, D68]

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

[RULE 402, 5-7-1976]

[Devices subject to this condition : D30]

D. Monitoring/Testing Requirements

D12.2 The operator shall install and maintain a(n) temperature reading device to accurately indicate the temperature at the inlet to the SCR reactor.

[**RULE 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C31]

D12.3 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia (NH3).

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 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C31]

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:

D12.10 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage of the turbine.

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

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 2012, 5-6-2005]**

[Devices subject to this condition : D67, D68]

D12.11 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 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.

The ammonia injection rate shall remain between 1 gallon per hour and 75 gallons per hour

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005]**

[Devices subject to this condition : C76, C80]

D12.12 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the in the exhaust at the inlet to the SCR reactor.

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 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.

The temperature shall remain between 400 degrees F and 750 degrees F

The catalyst temperature shall not exceed 750 degrees F during the start-up period.

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]

[Devices subject to this condition : C76, C80]

D12.13 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 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.

The pressure drop acorss the catalyst shall remain between 1 inch of water column and 4 inches of water column

The pressure drop across the catalyst shall not exceed 4 inches of water during the start-up period.

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005**]

[Devices subject to this condition : C76, C80]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

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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:

The test shall be conducted at least annually.

The test shall be conducted to determine the NH3 emissions at the outlet.

The test shall be conducted to determine the NH3 emissions using District method 207.1 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 : C31]

D29.7 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
PM10 emissions	District Method 5	4 hours	Outlet of the SCR serving this equipment
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
SOX emissions	AQMD Laboratory Method 307-91	Not Applicable	Fuel sample
NH3 emissions	AQMD Laboratory Method 307-91	1 hour	Outlet of the SCR serving this equipment

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EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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 to determine the oxygen levels in the exhaust. In addition, the test shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in megawatts (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 maximum, average, and minimum loads.

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 is 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 preconcentration) 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. The test results shall be reported with two significant digits.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

For the purpose of this condition, alternative test methods may be allowed for each of the above pollutants upon concurrence of AQMD and EPA

[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 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

D29.8 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 AQMD 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 shall be conducted at least quarterly during the first 12 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 determine compliance with the Rule 1303 BACT concentration limit.

If the equipment is not operated in any given quarter, the operator may elect to defer the required testing to a quarter in which the equipment is operated.

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

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:

[Devices subject to this condition : D67, D68]

D29.9 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	AQMD Laboratory Method 307-91	Not Applicable	Fuel sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	District Method 5	4 hours	Outlet of the SCR serving this equipment

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:

The test(s) shall be conducted at least once every three years for SOx and PM10, and yearly for VOC.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the test shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in megawatts (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 is 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 preconcentration) 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. The test results shall be reported with two significant digits.

For the purpose of this condition, alternative test methods may be allowed for

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

each of the above pollutants upon concurrence of AQMD and EPA

[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 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

D82.4 The operator shall install and maintain a CEMS to measure the following parameters:

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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:

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and operated no later than 90 days after initial start-up of the turbine, and in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving intial approval from AQMD. Within two weeks of turbine start-up, the operator shall provide written notification to the AQMD of the exact date of start-up.

The CEMS shall be installed and operated to measure the CO concentration over a 15 minute averaging time period.

The CEMS shall convert the actual CO concentrations to mass emission rates (lb/hr) using the equation below and record the hourly emission rates on a continuous basis.

CO Emission Rate, (lb/hr) = K Cco Fd[20.9/(20.9-%O2)][(Qg * HHV)/1000000], where

K = 7.267 EE-8 (lb/scf)/ppm

Cco = Average of four consecutive 15 min avg CO concentrations, ppm

Fd = 8710 dscf/MMBTU natural gas

%O2 = Hourly avg % by volume O2, dry basis, corresponding to Cco

Qg = Fuel gas usage during the hour, scf/hr

HHV = Gross high heating value of fuel gas, BTU/scf

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 218, 8-7-1981; RULE 218, 5-14-1999]**

[Devices subject to this condition : D67, D68]

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

D82.5 The operator shall install and maintain a CEMS to measure the following parameters:

NOX 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 start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine start-up date, the operator shall provide written notification to the AQMD of the exact date of start-up.

The CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start-up of the turbine.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; **RULE 2005, 5-6-2005; RULE 2012, 5-6-2005**]

[Devices subject to this condition : D67, D68]

E. Equipment Operation/Construction Requirements

E73.2 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection if any of the following requirement(s) are met:

the inlet exhaust temperature to the SCR reactor is 500 Deg F or less

[**RULE 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C31]

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

E144.2 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 : D30]

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 12-3

[**RULE 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C31]

E179.5 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 12-11

Condition Number D 12-12

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : C76, C80]

E179.6 For the purpose of the following condition number(s), continuously record 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 12-13

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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 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : C76, C80]

E193.2 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all air quality mitigation measures stipulated in the final California Energy Commission decision for the 00-AFC-14C project

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D67, D68]

E193.3 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

The combined cycle gas turbine units 5 and 7 shall not operate simultaneously with boiler units 1,2, or 3 except for the 90 day period as stipulated in AQMD Rule 1313. El Segundo Power shall surrender the Permit to Operate (P/N F14448) for boiler no. 3 within 90 days of the start-up of the combined cycle gas turbines.

[**RULE 1313(d), 12-7-1995**]

[Devices subject to this condition : D67, D68]

I. Administrative

I296.1 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the annual emissions increase for the first 12 months of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

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

For the purposes of this condition, the annual emission increase is INTEGER lbs. of EXACT CHAR

RTCs held for the purpose of demonstrating compliance with this condition either at the commencement of initial operation or of a compliance year may be sold only after 12 months of start of initial operation or after the fourth quarter of the applicable compliance year, respectively. CONDITION PARAMETER NOT SET UP

To comply with this condition, the operator shall prior to the 1st compliance year hold a minimum NOx RTCs of 104,864 lb/yr. This condition shall apply to the 1st month of operation, commencing with the intial operation of the gas turbine.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 90,953 lb/yr NOx RTCs for operation of the gas turbine. In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the forth quarter of the applicable compliance year inclusive of the 1st compliance year. This condition shall apply to each turbine individually

[**RULE 2005, 5-6-2005;** RULE 2005, 6-3-2011]

[Devices subject to this condition : D67, D68]

K. Record Keeping/Reporting

K40.4 The operator shall provide to the District a source test report in accordance with the following specifications:

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

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 concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/MM Cubic Feet. 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; **RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 5-6-2005**]

[Devices subject to this condition : D67, D68]

K48.2 The operator shall maintain records in a manner approved by the District, to demonstrate compliance with the following condition number(s):

Condition no. 12-2

Condition no. 12-3

[**RULE 2012, 5-11-2001; RULE 2012, 12-5-2003**]

[Devices subject to this condition : C31]

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
EL SEGUNDO ENERGY CENTER

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

the total hourly amount of injected ammonia

[RULE 2012, 5-11-2001; RULE 2012, 12-5-2003]

[Devices subject to this condition : C31]

K67.5 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas fuel use after CEMS certification

Natural gas fuel use during the commissioning period

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

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D67, D68]

PERMIT TO CONSTRUCT

COMPANY NAME AND ADDRESS

El Segundo Power, LLC
301 Vista Del Mar
El Segundo, CA 90245
FACILITY ID # 115663

CONTACT: Mr. George L. Piantka, P.E. (760) 710-2156

EQUIPMENT LOCATION

Same As Above

EQUIPMENT DESCRIPTION:

Section H:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 2: GAS TURBINE, POWER GENERATION					
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 5, CORMETECH, MODEL CM21HT, WITH 2,050 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 25 FT; HEIGHT: 70 FT; LENGTH: 24 FT 3 IN WITH A/N ~~470653~~ 536715	C76	C75 S78		**NH3:** 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT	A195.11, D12.11, D12.12, D12.13, E179.5, E179.6
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 7, CORMETECH, MODEL CM21HT, WITH 2,050 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 25 FT; HEIGHT: 70 FT; LENGTH: 24 FT 3 IN WITH A/N ~~470654~~ 536716	C80	C79 S82		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT	A195.11, D12.11, D12.12, D12.13, E179.5, E179.6

EQUIPMENT DESCRIPTION (continued)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 5: INORGANIC CHEMICAL STORAGE					
STORAGE TANK, UNDERGROUND, TK-001 , AQUEOUS AMMONIA, 29 PERCENT, CARBON STEEL,DOUBLE WALLED, WITH 3 TRANSFER PUMPS AND A PRV SET AT A MINIMUM OF 50 PSIG, 20,000 GALLONS, DIAMETER: 10 FT 2 IN; LENGTH: 37 FT 10 IN; WITH	D30				C157.1, ~~E57.2~~, E144.2
~~SCRUBBER, VENTURI, TWO STAGE~~ WITH A/N ~~379904~~ 536349	~~C64~~				

BACKGROUND

El Segundo Power, LLC currently operates an independent electrical generation facility located in the City of El Segundo. The facility was issued a license from the California Energy Commission on February 2, 2005 and has been issued Permits to Construct on July 13, 2010 from AQMD for a 573 MW combined cycle natural gas fired electrical generation facility which consists of two Siemens-Westinghouse rapid response-combined cycle gas turbines and two SCR/CO Catalyst systems, and a 20,000 gallon aqueous ammonia storage tank. On June 21, 2011, El Segundo Power, LLC requested an extension for the Permits to Construct and AQMD granted the extension on July 15, 2011 with a new P/C expiration date of July 13, 2012. Construction has commenced and is proceeding as scheduled.

NEW APPLICATIONS

On May 16, 2012, El Segundo Power, LLC submitted applications for a minor modification to their RECLAIM/Title V Permit requesting a revision to the aqueous ammonia flow rates listed in permit condition D12.11 for the two selective catalytic reduction (SCRs), units no. 5 and 7 as well as the removal of the venturi scrubber associated with the NH3 storage tank as well as permit condition E57.2 since the scrubber was never installed. The venturi scrubber was designed to handle NH3 filling losses due to NH3 loading via a pipeline from Chevron. Since the facility will not be constructed using the pipeline, the venturi scrubber will not be needed. All NH3 will now be delivered by tank truck and emissions will be mitigated by a vapor return line. El Segundo Power, LLC requested expedited processing for these applications. The above requests constitute a change of conditions to the original permits and are classified as Fee Schedule G in Rule 301. However, AQMD considered and concurred with a request by El Segundo Power, LLC to process these applications as administrative changes with reduced processing fees. The proposed amendments are considered

minor permit revisions and will be submitted to EPA for a 45 day review and comment period. The processing fees for the requested amendments are shown below:

A/N	Equipment	Processing Fee	XPP Fee
536715	Selective Catalytic Reduction No. 5	694.16	$1.041.24
536716	Selective Catalytic Reduction No. 7	694.16	$1.041.24
536349	NH3 Storage Tank	694.16	$1.041.24
536347	Title V Minor Modification	$1,747.19	$1,747.19
		Total Processing Fees	$4,870.91

COMPLIANCE REVIEW

A review of the District compliance database indicates there was one Notice of Violation (NOV) issued to El Segundo Power, LLC on 12/22/2010 for a violation which occurred on 12/16/2010 for demolition of decommissioned units 1 and 2 without proper demolition notification. Fugitive dust remained visible in the atmosphere beyond the property line of emission source. A Notice to Comply (NC) was issued 12/22/2010 to provide any and all records for asbestos removal and demolition of units 1 and 2. Provide all contracts/bids for work involved on units 1 and 2, and to provide a list of companies involved in the asbestos removal and demolition work on units 1 and 2. A second NC was issued on 1/14/2011 to submit copies of all contracts in which El Segundo Power, LLC allows access to and operation of their equipment by NRG El Segundo Operations Inc. to verify who operator is per Rule 203(a). No other compliance activity was noted.

EMISSIONS

The proposed administrative changes will not result in an emission increase.

RECOMMENDATION

Issue a revised permits to construct with the following modified conditions for the SCRs and NH3 storage tank:

CONDITIONS

A/Ns 536715 and 536726 (SCRs No. 5 & 7):

D12.11 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the hourly throughput of injected ammonia.

The ammonia injection rate shall remain between ~~4.8~~ 1 gallon per hour and ~~11.5~~ 75 gallons per hour.
[Rule 1303(a) – BACT, Rule 1703(a)(2) – PSD-BACT]

A/N 536349 (NH3 Storage Tank)

~~E57.2 The operator shall vent this equipment to the two stage venturi scrubber described as Device C64 whenever the tank is undergoing loading of ammonia.~~
~~[Rule 1303(a) – BACT]~~