STOEL RIVES LLP
ATTORNEYS AT LAW

980 Ninth Street, Suite 1900
Sacramento, California 95814
main 916.447.0700
fax 916.447.4781
www.stoel.com

July 31, 2008

KIMBERLY HELLWIG
Direct (916) 319-4742
kjhellwig@stoel.com

VIA HAND DELIVERY AND EMAIL

Mr. Steve Munro
Compliance Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: El Segundo Power Redevelopment Project (00-AFC-14C)
Correspondence to South Coast Air Quality Management District Regarding PM2.5 National Ambient Air Quality Standards

Dear Mr. Munro:

On behalf of El Segundo Power II LLC, please find the enclosed correspondence sent to Mr. Kenneth Coats of the South Coast Air Quality Management District. The July 30, 2008 correspondence describes the approach to be used by the El Segundo Power Redevelopment Project to comply with the recently implemented permitting program for $PM_{2.5}$ National Ambient Air Quality Standards.

Should you have any questions or concerns regarding this document, please do not hesitate to contact John McKinsey or George Piantka.

Very truly yours,

Kimberly Hellwig
Senior Paralegal

KJH:kjh
Enclosure
cc: Mr. George Piantka, El Segundo Power II LLC
Mr. Tim Hemig, El Segundo Power II LLC
Mr. John McKinsey, Stoel Rives LLP

301 Vista Del Mar Blvd
El Segundo, CA 90245

Direct: (310) 615-6342
Fax: (310) 615-6060

El Segundo Power II LLC

July 30, 2008

Mr. Kenneth L. Coats
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182

Subject: El Segundo Power Redevelopment Project (Facility ID No. 115663)

Dear Mr. Coats,

The purpose of this letter is to describe the approach that will be used by the El Segundo Power Redevelopment Project (ESPR) to comply with the recently implemented permitting program for the $PM_{2.5}$ National Ambient Air Quality Standards. In a May 16, 2008 Federal Register notice, USEPA issued rules on how states should implement the New Source Review (NSR) permitting program for the $PM_{2.5}$ National Ambient Air Quality Standards. While EPA allows states three years to amend their permit programs covering $PM_{2.5}$ nonattainment areas as of July 15, 2008, the EPA requires new major sources or major modifications of $PM_{2.5}$ located in $PM_{2.5}$ nonattainment areas to undergo NSR permitting via 40 CFR 51, Appendix S.

To address this additional NSR permitting requirement, the ESPR proposes to accept new permit conditions limiting the facility-wide $PM_{2.5}$ potential to emit for the ESPR below the major source threshold of 100 tons/year. We request the following new permit conditions be added to the permit the District is currently working on for the ESPR:

Condition 1: The operator shall limit the combined $PM_{2.5}$ emissions from Devices D11, D13, D67, and D68 to 98 tons/year. The operator shall calculate the annual emissions of $PM_{2.5}$ using the equation below.

Annual $PM_{2.5}$ emissions, tons/year = $(X_{D11} \times EF_{D11}) + (X_{D13} \times EF_{D13}) + (X_{D67} \times EF_{D67}) + (X_{D68} \times EF_{D68})$

Where X = annual fuel usage (mmscf/year) for each unit

Where EF = $PM_{2.5}$ emission factor (lbs/mmscf) for each unit

The operator shall use a $PM_{2.5}$ emission factor of 5.16 lbs/mmscf for Devices D11 and D13 and an emission factor of 4.66 lbs/mmscf for Devices D67 and D68. The operator may use alternative $PM_{2.5}$ emission factors, based on source test results provided that these factors are approved by the AQMD.

[Devices subject to this condition: D11, D13, D67, D68]

Condition 2: The operator shall conduct source test(s) for the pollutant(s) identified below to verify the $PM_{2.5}$ emission factors.

Pollutant	*Required Test Method*	*Averaging Time*	*Test Location*
$PM_{2.5}$	*AQMD Approved*	*AQMD Approved*	*Outlet of SCR serving this equipment*

The test(s) shall be conducted once every three years for $PM_{2.5}$.

The test shall be conducted in accordance with an 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 equipment 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(s) shall be conducted when this equipment is operating at 100 percent load.

[Devices subject to this condition: D11, D13, D67, D68]

The proposed emission factor for Units 3 and 4 (Devices D11 and D13) is based on a review of source test data collected in May 2001. During a four day period in May 2001, eight 1-hour particulate tests were performed on Unit 3 at four different loads with and without ammonia injection. The particulate emission factor of 7.22 lbs/mmscf recorded during Test Run Number 7 was the only result out of eight that was higher than 4.00 lbs/mmscf. Consequently, this test run appears to be an outlier and was not included in the $PM_{2.5}$ emission factor calculation for Units 3 and 4. The average of the remaining seven test runs is 2.88 lbs/mmscf and the standard deviation is 0.88 lbs/mmscf. The proposed $PM_{2.5}$ emission factor of 5.0 lbs/mmscf for Units 3 and 4 is rounded up from the average of the test results plus two standard deviations. The detailed emission factor calculations for Units 3 and 4 are included in Attachment 1. The proposed $PM_{2.5}$ emission factor for Units D67 and D68 (Units 5 and 7) is the same as the PM_{10} emission factor contained in draft permit condition A63.2.

If you have any questions or need further information, please don't hesitate to contact me at (310) 615-6342.

Sincerely,

Roy E. Craft
Regional Plants Manager
El Segundo Power II LLC

Enclosure

cc: Mohsen Nazemi, SCAQMD
Michael Mills, SCAQMD
John Yee, SCAQMD
Stephen D. Munro, CEC
CEC Dockets 00-AFC-14C
Tim Hemig, NRG
Tom Andrews, Sierra Research

ATTACHMENT 1

PARTICULATE SOURCE TEST RESULTS
EL SEGUNDO GENERATING STATION UNIT 3

Summary of Particulate Test Results
El Segundo Generating Station - Unit 3

Test Number	Test Date	Natural Gas Flow Rate (kscfh)	PM Test Results (lbs/hr)	PM Emission Factor (lbs/mmscf)
1	5/23/2001	2345	8.5	3.62
2	5/23/2001	2344	9.2	3.92
3	5/24/2001	1633	4.6	2.82
4	5/24/2001	1630	4.7	2.88
5	5/25/2001	906	1.9	2.10
6	5/25/2001	911	1.3	1.43
8	5/29/2001	3103	10.5	3.38
			Average =	2.88
			S.D. =	0.88
			Average + 2 S.D. =	4.64

PERMIT TO CONSTRUCT COMPLIANCE TEST REPORT FOR NRG EL SEGUNDO UNIT 3 FACILITY ID 115663 DEVICE ID D11

PREPARED FOR:

NRG EL SEGUNDO OPERATIONS
301 VISTA DEL MAR BLVD
EL SEGUNDO, CALIFORNIA 90245

PREPARED BY:

Matthew R. McCune, P.E.
Vice President

REVIEWED BY:

Robert A. Finken
President

DELTA AIR QUALITY SERVICES, INCORPORATED
1845 NORTH CASE STREET
ORANGE, CALIFORNIA 92865-4234
(714) 279-6777

JUNE 2001
REPORT NUMBER: **R031741**

1.0 INTRODUCTION

Delta Air Quality Services, Inc. (Delta) was contracted by NRG El Segundo to perform the Permit to Operate compliance testing for Unit 3 following installation of a Selective Catalytic Reduction (SCR) system. Testing was performed to satisfy the requirements of condition 28-4 of the Permit to Operate. A test protocol (Delta document R031570) was submitted to the SCAQMD and conditionally accepted by SCAQMD on May 23, 2001

This report documents the results of the compliance testing performed from May 23 – 29, 2001. The Delta test team consisted of Matt McCune, John Peterson, Shannon Scrugham, and Ali Rasi. Steve Odabashian of NRG El Segundo coordinated the testing. The SCAQMD was notified of the test but was not present during the test.

2.0 SUMMARY OF RESULTS

The test results from the 335 MW, 250 MW, 170 MW, and 85 MW tests are summarized in Tables 2-1 through 2-4, respectively. The results show that the measured values for particulate matter (PM) and ammonia (NH_3) were below the permitted limits at all test conditions. Carbon monoxide (CO), oxides of sulfur (SO_x), and reactive organic gases (ROG's) were measured only during full load with ammonia injection. The CO emissions were below the permitted limit during this test. No emission limit is stated in the permit for oxides of nitrogen (NO_x), SO_x, or ROG's.

TABLE 2-1
NRG EL SEGUNDO UNIT 3
FULL LOAD TEST RESULTS

		Baseline (no ammonia)	With ammonia injection	Limit
Date		5/29/01	5/29/01	
Time		1030/1142	1241/1354	
O_2	%, dry	3.67	3.64	--
CO_2	%, dry	9.99	10.02	--
Stack Flow Rate	kacfm	949.8	967.8	--
	kdscfm	597.3	606.9	--
Stack Temperature	°F	225.8	226.9	--
H_2O	%	16.8	16.9	--
NO_x	ppm	87.99	7.10	--
	ppm @ 3% O_2	91.4	7.36	--
	lb/hr	382.2	9.1	--
	lb/MMBtu	0.109	0.009	--
	lb/MMSCF	112.6	9.1	--
PM	gr/dscf	0.0044	0.0020	0.1
	lb/hr	22.5	10.5	--
NH_3	ppm	n/a	4.3	--
	ppm @ 3% O_2	n/a	4.4	10
	lb/hr	n/a	6.9	--
	lb/MMBtu	n/a	0.0020	--
	lb/MMSCF	n/a	2.0	--

TABLE 2-1 (continued)
NRG EL SEGUNDO UNIT 3
FULL LOAD TEST RESULTS

		Baseline (no ammonia)	With ammonia injection	Limit
CO	ppm	n/a	32.10	--
	ppm @ 3% O_2	n/a	32.29	300
	lb/hr	n/a	86.2	--
	lb/MMBtu	n/a	0.024	--
	lb/MMSCF	n/a	25.0	--
SO_x	ppm	n/a	1.3	--
	ppm @ 3% O_2	n/a	1.4	--
	lb/hr	n/a	8.2	--
	lb/MMBtu	n/a	0.0023	--
	lb/MMSCF	n/a	2.4	--
ROG's	ppm	n/a	2.43	--
	ppm @ 3% O_2	n/a	2.52	--
	lb/hr	n/a	3.7	--
	lb/MMBtu	n/a	0.0010	--
	lb/MMSCF	n/a	1.1	--

TABLE 2-2
NRG EL SEGUNDO UNIT 3
250 MW TEST RESULTS

		Baseline (no ammonia)	With ammonia injection	Limit
Date		5/23/01	5/23/01	
Time		0937/1048	1155/1308	
O_2	%, dry	4.22	4.27	--
CO_2	%, dry	9.57	9.72	--
Stack Flow Rate	kacfm	720.1	699.4	--
	kdscfm	466.7	452.3	--
Stack Temperature	°F	201.3	203.1	--
H_2O	%	17.2	17.2	--
NO_x	ppm	66.2	4.77	--
	ppm @ 3% O_2	71.1	5.14	--
	lb/hr	224.7	15.7	--
	lb/MMBtu	0.085	0.006	--
	lb/MMSCF	87.7	6.3	--
PM	gr/dscf	0.0021	0.0024	0.1
	lb/hr	8.5	9.2	--
NH_3	ppm	n/a	3.0	--
	ppm @ 3% O_2	n/a	3.3	10
	lb/hr	n/a	3.7	--
	lb/MMBtu	n/a	0.0015	--
	lb/MMSCF	n/a	1.5	--

TABLE 2-3
NRG EL SEGUNDO UNIT 3
170 MW TEST RESULTS

		Baseline (no ammonia)	With ammonia injection	Limit
Date		5/24/01	5/24/01	
Time		0743/0855	0945/1057	
O_2	%, dry	4.48	4.51	--
CO_2	%, dry	9.54	9.51	--
Stack Flow Rate	kacfm	450.0	465.0	--
	kdscfm	301.5	313.1	--
Stack Temperature	°F	180.9	182.4	--
H_2O	%	17.1	16.5	--
NO_x	ppm	45.33	3.52	--
	ppm @ 3% O_2	49.41	3.84	--
	lb/hr	99.4	8.0	--
	lb/MMBtu	0.059	0.005	--
	lb/MMSCF	61.0	4.7	--
PM	gr/dscf	0.0018	0.0018	0.1
	lb/hr	4.6	4.7	--
NH_3	ppm	n/a	0.6	--
	ppm @ 3% O_2	n/a	0.7	10
	lb/hr	n/a	0.55	--
	lb/MMBtu	n/a	0.0003	--
	lb/MMSCF	n/a	0.32	--

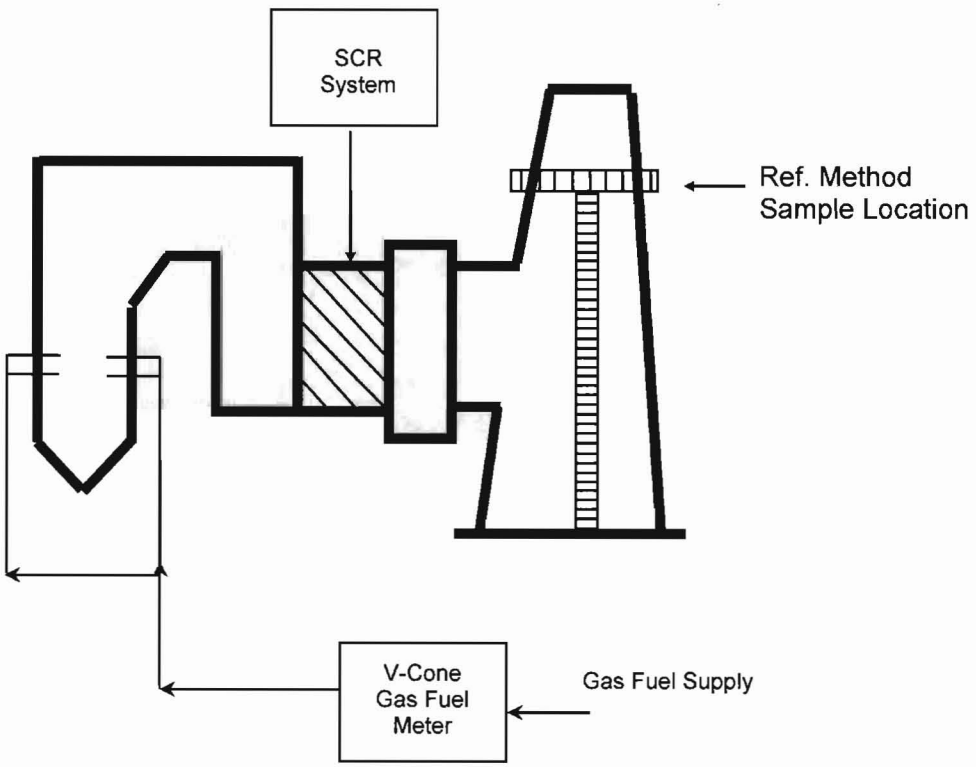
TABLE 2-4
NRG EL SEGUNDO UNIT 3
85 MW TEST RESULTS

		Baseline (no ammonia)	With ammonia injection	Limit
Date		5/25/01	5/25/01	
Time		0100/0212	0303/0416	
O_2	%, dry	7.85	7.90	--
CO_2	%, dry	7.41	7.45	--
Stack Flow Rate	kacfm	307.9	299.2	--
	kdscfm	222.4	218.2	--
Stack Temperature	°F	157.6	154.6	--
H_2O	%	13.8	13.4	--
NO_x	ppm	17.77	1.57	--
	ppm @ 3% O_2	24.38	2.16	--
	lb/hr	28.7	2.5	--
	lb/MMBtu	0.029	0.003	--
	lb/MMSCF	30.2	2.7	--
PM	gr/dscf	0.0010	0.0007	0.1
	lb/hr	1.9	1.3	--
NH_3	ppm	n/a	0.2	--
	ppm @ 3% O_2	n/a	0.3	10
	lb/hr	n/a	0.11	--
	lb/MMBtu	n/a	0.0001	--
	lb/MMSCF	n/a	0.12	--

4.0 PROCESS AND EQUIPMENT DESCRIPTION

NRG El Segundo (Facility ID#115663), Unit 3 (Device ID# D11) consists of a utility boiler and steam turbine electric generator. The boiler and generator have a full load rating of 335 megawatts. The boiler is capable of firing natural gas or a combination of natural gas and refinery gas. Figure 4-1 presents a block diagram of the unit.

FIGURE 4-1
SIMPLIFIED PROCESS BLOCK DIAGRAM
NRG EL SEGUNDO UNIT 3



5.0 PROCESS CONDITIONS DURING THE TEST

All tests were performed while the unit was in normal, steady-state operation. The SCR system was operated per the manufacturer's instructions during all tests. Tests were performed at four operating loads. At each operating load, one set of tests were performed with no ammonia injection (baseline) and one set of tests were performed with ammonia injection. Table 5-1 provides the unit operations data during each test.

TABLE 5-1
NRG EL SEGUNDO UNIT 3 COMPLIANCE TESTS
UNIT OPERATING CONDITIONS

Nominal Load		250 MW		170 MW		85 MW		335 MW	
Condition		Baseline	with ammonia	Baseline	with ammonia	Baseline	with ammonia	Baseline	with ammonia
Test #		1	2	3	4	5	6	7	8
Date		5/23/01	5/23/01	5/24/01	5/24/01	5/25/01	5/25/01	5/29/01	5/29/01
Time		937/1048	1155/1308	743/855	945/1057	100/212	303/416	1030/1142	1241/1548
Load	net MW	244	244	167	166	82	82	325	326
Natural Gas									
Flow Rate	kscfh	2,345	2,344	1,633	1,630	906	911	3,118	3,103
HHV	Btu/SCF	1,031	1,031	1,032	1,032	1,034	1,031	1,029	1,031
F-Factor	dscf/MMBtu	8,586	8,586	8,586	8,586	8,585	8,586	8,586	8,586
Refinery Gas									
Flow Rate	kscfh	0	0	0	0	0	0	0	0
NH_3 Flow									
East	lb/hr	0	132.2	0	64.8	0	16.7	0	227.4
West	lb/hr	0	143.6	0	64.6	0	16.5	0	226.8
Total	lb/hr	0	275.8	0	129.4	0	33.2	0	454.2

6.0 REFERENCE METHOD SAMPLING TECHNIQUES

Table 6-1 summarizes the test methods and techniques which were used as the reference methods. The test matrix was developed to meet the requirements of the facility Permit. The permitted emission limits are summarized in Table 6-2. Table 6-3 shows the test matrix which was performed at each operating condition. The following sections describe each method in further detail. Flue gas Oxygen and Carbon Dioxide concentration were measured in conjunction with all tests using SCAQMD Method 100.1. The flue gas flow rate was measured in conjunction with the particulate tests. This flue gas flow rate was used for all emission rate calculations of NO_x, CO, NH_3, PM, ROG's and SO_x. The fuel heating value and F-Factor, as recorded by the facility gas chromatograph, were recorded during each test and used for the lb/MMBtu and lb/MMSCF calculations.

TABLE 6-1
TEST METHODS

Parameter	Method	Measurement Principle	Number of Runs[1]	Test Duration
NO_x	SCAQMD 100.1	Chemiluminescence	1	64 minutes
CO	SCAQMD 100.1	NDIR/Gas Filter Correlation	1[2]	64 minutes
NH_3	SCAQMD 207.1	Colorimetery	1[3]	60 minutes
SO_x	SCAQMD 6.1	Titration	1[2]	60 minutes
PM	SCAQMD 5.2	Gravimetric	1	64 min
VOC	Draft SCAQMD 25.3	GC	2[2]	~50 min.

1) Per test operating condition
2) CO, SO_2, and ROG tests were performed only at full load with ammonia injection
3) Ammonia tests were performed only for the test conditions with ammonia injection

TABLE 6-2
NRG EL SEGUNDO UNIT 3
PERMITTED EMISSION LIMITS

Parameter	Units	Limit	Rule
NO_x	--	--	2012
CO	ppm @ 3% O_2	300	1303(b)(2)
NH_3	ppm @ 3% O_2	10	1303(a)(1)
Particulate	gr/DSCF	0.1	409
SO_x	tons/year	182	40 CFR Part 72
ROG's	--	--	--