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October 3, 2014

VIA E-FILING

El Segundo Energy Center Petition to Amend (00-AFC-14C)
Roger Johnson, Deputy Director
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: El Segundo Energy Center (00-AFC-14C)
Project Owner's Petition to Amend the El Segundo Energy Center Project

Dear Mr. Johnson:

Enclosed please find a new Petition to Amend ("PTA") the El Segundo Energy Center Project. This PTA is being submitted solely in electronic format, but if you desire paper document versions, please do not hesitate to ask for them. This PTA requests simple but important clarifying language found in four air quality conditions of certification. The change is being sought concurrently with South Coast Air Quality Management District, which is the source of the condition language. Project Owner requests that this PTA be given higher priority than the PTA currently before the Commission.

Locke Lord LLP

By: _____
John A. McKinsey
Attorneys for El Segundo Energy Center LLC

JAM:dh

Enclosure

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	**Docket No. 00-AFC-14C**
	)	
	)	
EL SEGUNDO ENERGY CENTER	)	**PETITION TO AMEND FINAL DECISION**
	)	
EL SEGUNDO ENERGY CENTER LLC	)	
	)	

PETITION TO AMEND FINAL DECISION

October 3, 2014

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Attorneys for **EL SEGUNDO ENERGY CENTER LLC**

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	**Docket No. 00-AFC-14C**
	)	
	)	**PETITION TO AMEND**
EL SEGUNDO POWER	)	**FINAL DECISION**
REDEVELOPMENT PROJECT	)	
	)	
EL SEGUNDO ENERGY CENTER LLC	)	
	)	

I. INTRODUCTION

This Petition seeks to amend the Final Decision[1] issued by the California Energy Commission ("CEC" or "Commission") to El Segundo Energy Center LLC ("ESEC LLC" or " Petitioner") for the El Segundo Energy Center (CEC Docket No. 00-AFC-14C; herein referred to as "ESEC"). Petitioner submits this Petition to request a modification to the CEC's Final Decision for the ESEC. The instant Petition provides the information required under Title 20, California Code of Regulations,[2] Section 1769.

[1] The Commission issued its Final Decision on the ESEC Application for Certification on February 2, 2005 and approved ESEC LLC's major amendment petition on June 30, 2010.

[2] All references to the California Code of Regulations herein refer to Title 20 unless otherwise specified.

II. SUMMARY OF PROPOSED CHANGES

Petitioner requests the addition of clarifying language to Air Quality Conditions of Certification AQ-16, AQ-17, AQ-20, and AQ-32 (hereinafter referred to as "Conditions") regarding the allowable number of annual startups for Units 5 and 7. As specified in these Conditions, each unit is limited to 200 startups per year. Actual operating experience over the past several months has shown that, periodically, aborted startups occur due to system upsets. This results in the startup, shutdown, and restart of a unit. These startup/restart occurrences have occurred approximately 10 times per unit in 2014 and prorated for a full year are anticipated to occur 15 times per unit per year during the operations of the respective units. The Conditions of Certification do not address how these startup/restarts should be counted for purposes of tracking compliance with the 200 starts/year limit. This creates ambiguities regarding the ability to compliantly operate ESEC as requested or needed by California and the California Independent System Operator. Thus, the requested changes to the Final Decision are important changes that stem from the operational experience that Petitioner has had with ESEC in its initial period of operation.

To address how these startup/restart occurrences should be counted, the Petitioner requests that clarifying language be added to the Conditions AQ-16, AQ-17, AQ-20, and AQ-32. This clarifying language, discussed in further detail below, is not unprecedented. It has been included by the CEC and the South Coast Air Quality Management District ("SCAQMD") in the license and permit for a previously approved project.[3]

The requirements of Air Quality Conditions of Certification AQ-16, AQ-17, AQ-20, and AQ-32 are reflected in SCAQMD Title V Permit Conditions A99.7, A99.8, A99.9, and A433.1, respectively. On September 15, 2014, Petitioner requested that SCAQMD revise these air

[3] CEC Final Decision, CPV Sentinel Energy Project, 07-AFC-03, December 2010, and SCAQMD permit for Facility 152707, CPV Sentinel.

permit conditions consistent with the changes proposed herein, as part of the Title V permit renewal process the SCQAMD is currently undertaking for the ESEC.

The proposed changes to AQ-16, AQ-17, AQ-20, and AQ-32, and the corresponding SCAQMD permit conditions, will not affect the emission limits on ESEC nor the 60-minute startup duration specified in the Conditions. For these reasons, ESEC LLC respectfully requests that the requested changes to the Conditions be approved. .

III. INFORMATION REQUIRED PURSUANT TO CALIFORNIA CODE OF REGULATIONS SECTION 1769

A. Complete description of the proposed modifications, including new language for any conditions that will be affected. (Section 1769(a)(1)(A).)

The proposed modification to the ESEC involves adding clarifying language to Conditions of Certification AQ-16, AQ-17, AQ-20, and AQ-32 pertaining to startups. Specifically, the proposed language addresses how a start/restart situation should be counted for purposes of tracking compliance with the 200 starts/year limit in the Conditions. The proposed language specifies that a startup that is aborted and then re-started will count as one startup. The duration of the startup specified in the Conditions would not be affected. The proposed additional language to the Conditions is included in **bold** below.

> **AQ-16:** The 2.0 PPM NOx emission limit(s) shall not apply during turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 415 gas turbine operating hours. Startup time shall not exceed 60 minutes for each startup. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 startups per year. **If during startup, the process is aborted and the startup is restarted, then the startup and restart will count as one startup. In this case, the startup time shall not exceed 60 minutes.** Written records of commissioning**,** start-ups and shutdowns shall be maintained and made available upon request from the District.
>
> 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.
>
> **Verification:** The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (CARB), the

United States Environmental Protection Agency (EPA) and the California Energy Commission (Commission).

AQ-17: The 2.0 4 PPM CO emission limits shall not apply during turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 415 gas turbine operating hours. Startup time shall not exceed 60 minutes for each startup. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 startups per year. **If during startup, the process is aborted and the startup is restarted, then the startup and restart will count as one startup. In this case, the startup time shall not exceed 60 minutes.** Written records of commissioning**,** start-ups and shutdowns shall be maintained and made available upon request from the District.

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.

Verification: The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (CARB), the United States Environmental Protection Agency (EPA) and the California Energy Commission (Commission).

AQ-20: The owner/operator shall comply at all times with the 2.0 ppm 1-hour BACT limit for NOx, except as defined in condition **AQ-16** and with the following additional restriction on startup.

NOx emissions shall not exceed 112 lbs total per startup per turbine. Each turbine shall be limited to 200 startups per year with each startup not to exceed 60 minutes in duration. **If during startup, the process is aborted and the startup is restarted, then the startup and restart will count as one startup. In this case, the startup time shall not exceed 60 minutes.**

Verification: The project owner shall submit CEMS records demonstrating compliance with this condition as part of the Quarterly Operational Report required in **AQ-C8**.

AQ-32 The 2.0 PPM VOC emission limit shall not apply during turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 415 operating hours. Startup time shall not exceed 60 minutes for each startup. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 200 startups per year. **If during startup, the process is aborted and the startup is restarted, then the startup and restart will count as one startup. In this case, the startup time shall not exceed 60 minutes.** Written records of commissioning, startups and shutdowns shall be maintained and made available upon request from the District.

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.

Verification: The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (CARB), the United States Environmental Protection Agency (EPA) and the California Energy Commission (Commission).

B. The Necessity for the Proposed Modification. (Section 1769(a)(1)(B).)

Section 1769(a)(1)(B) requires a discussion of the necessity of the proposed modifications. The proposed modification to Air Quality Conditions of Certification AQ-16, AQ-17, AQ-20, and AQ-32 is necessary to enable Petitioner to properly track compliance with the 200 starts/year limit specified in the conditions. The proposed modification is necessary to allow Petitioner to document compliance with the 200 starts/year limit as they pertain to the cited Conditions. The Conditions as currently written do not address how start/restart occurrences should be treated in terms of compliance with the 200 starts/year limit. The proposed language modification to the Conditions specifies that each start/restart occurrence should be treated as one startup. If each startup and restart were counted separately, the operating flexibility of the ESEC would be reduced (by effectively double-counting startups) with no corresponding environmental benefit. The proposed clarifying language will not affect the ESEC emission limits nor the startup duration specified in the Conditions.

C. The Proposed Modifications Are Based Upon Information Previously Unknown to Petitioner. (Section 1769(a)(1)(C).)

Section 1769(a)(1)(C) requires a discussion of whether the proposed changes are based on information previously known by Petitioner. In this case, Petitioner was not aware of the need for the proposed modification at the time of the original AFC proceeding nor at any time during subsequent PTA proceedings. Units 5 and 7 of the ESEC began commercial operation in the third quarter 2013; 2014 will mark the first full year of plant operations. The modification now proposed is the result of operating experience gained this year. The need for the modification could not have been known without this operating knowledge.

D. The Proposed Modifications Do Not Change or Undermine the Assumptions, Rationale, or Other Bases of the Final Decision. (Section 1769(a)(1)(D).)

The proposed modification to Air Quality Conditions of Certification AQ-16, AQ-17, AQ-20, and AQ-32 does not change or undermine the assumptions, rationale, or other bases of the Final Decision approving the ESEC or the Commission's amendment of the Final Decision in 2010. The proposed modifications provide clarifying language regarding how start/restart occurrences are addressed for tracking compliance with the 200 start/restart limit in Conditions AQ-16, AQ-17, AQ-20, and AQ-32. The proposed modifications do not change the emission limits nor modify the startup duration specified in the Conditions of Certification.

E. An Analysis of the Impacts the Proposed Modifications May Have on the Environment and Proposed Measures to Mitigate Any Significant Adverse Impacts (Section 1769(a)(1)(E).)

The proposed modification will not have a significant adverse impact on the environment because it does not change any of the emission limits nor the startup duration specified in the Final Decision approving the ESEC. The only discipline affected by the proposed modifications is air quality. Included in Attachment 1 is the Air Quality Analysis prepared on behalf of Petitioner by its consultant Sierra Research, as submitted to the SCAQMD on September 15, 2014.

F. The Impacts of the Modification of the Facility's Ability to Comply with Applicable LORS (Section 1769(a)(1)(F).)

The proposed modifications will not impact the ESEC's ability to comply with all applicable laws, ordinances, regulations or standards ("LORS"). The proposed modification does not change any of the emission limits nor the startup duration specified in the Conditions of Certification—it simply provides clarification regarding how start/restart occurrences are addressed for tracking compliance with the 200 starts/year limit. An analysis of the effects of

the proposed modification is set forth in the accompanying Air Quality Analysis included in Attachment 1.

G. How the Proposed Modifications May Affect the Public (Section 1769(a)(1)(G).)

The proposed modification will not affect the public since it will not change any of the emission limits nor the startup duration specified in the Conditions of Certification. The proposed modification simply provides clarification regarding how start/restart occurrences are addressed for tracking compliance with the 200 starts/year limit in the Conditions. Petitioner conducted a thorough analysis, which is provided in the accompanying Air Quality Analysis.

H. Potential Effect on Property Owners, the Public, and the Parties to the Application Proceeding (Section 1769(a)(1)(H) and (Section 1769(a)(1)(I).).)

Nearby property owners, the Public, and Parties to the Application Proceeding will not be affected by the proposed modification since it will not change any of the emission limits nor the startup duration specified in the Conditions of Certification. The proposed modification amends four Conditions of Certification to provide clarification regarding how start/restart occurrences should be counted for tracking compliance with the 200 starts/year limit in the Conditions. Given there are no potentially affected property owners, a list is not included.

IV. CONCLUSION

For all the reasons above, and as set forth in the accompanying Air Quality Analysis, Petitioner requests the Commission approve the proposed modification to the ESEC.

Dated: October 3, 2014

By: _____

John A. McKinsey
Locke Lord LLP
Attorneys for El Segundo Energy Center

Attachment 1
Air Quality Analysis

September 15, 2014

sierra research

1801 J Street
Sacramento, CA 95811
Tel: (916) 444-6666
Fax: (916) 444-8373

Ann Arbor, MI
Tel: (734) 761-6666
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Kenneth L. Laird
AQ Engineer II
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Subject: El Segundo Power Facility – Title V Permit Renewal

Dear Mr. Laird:

On behalf of El Segundo Power, Sierra Research is making the following request to add clarification language to the Title V permit for the El Segundo Power Facility (I.D. 115663) regarding counting the number of annual startups for Units 5 and 7 (Devices D67 and D68). This request is being made as part of the Title V permit renewal process that the District is currently undertaking for this facility.

Under existing permit conditions A99.7, A99.8, A99.9, and A433.1, each unit is limited to 200 startups per year. During an hour with a normal startup, the unit undergoes several minutes of elevated emissions (above BACT ppm limits) followed by emissions remaining below the BACT ppm permit limits for the remainder of the hour. This normal startup sequence is discussed in the May 18, 2010 SCAQMD engineering evaluation for the facility:[1]

> *…the hourly emission rates during a start-up hour will be based on 12 minutes of uncontrolled emissions followed by 48 minutes of normal operation in which BACT levels are assumed…*

Based on actual operating experience gathered over the past several months, periodically there are aborted startups that occur due to system upsets. This results in a startup, shutdown, and restart of a unit. These startup/restart situations are limited to approximately 10 to 15 per year per unit. As currently written, the existing permit does not provide any guidance on how these startup/restarts should be counted for purposes of tracking compliance with the 200 starts/year limit in the permit. To clarify how these startup/restart occurrences should be counted, we request that the following language that the SCAQMD has included in the permits for other power plants[2] be included in the new El Segundo Power Facility Title V permit in conditions A99.7, A99.8, A99.9, and A433.1:

[1] SCAQMD Engineering Evaluation for the El Segundo Power Redevelopment Project, page 16 of 48, May 18, 2010.
[2] The SCAQMD permit for Facility 152707, CPV Sentinel.

If during start-up the process is aborted and the start-up is restarted, then the start-up and restart will count as one start-up. In this case the start-up time shall not exceed 60 minutes.

Because this request for clarification language is associated with the annual number of startups per unit and because NOx and CO emissions tend to be elevated during startups, this request is linked to the maximum annual NOx and CO emissions analyzed by the SCAQMD during the original permitting of Units 5 and 7. The maximum annual NOx and CO emissions for Units 5 and 7 were based on 200 startups per year per unit with corresponding annual average hourly NOx and CO emission rates of 56.03 lbs/hr and 417.42 lbs/hr, respectively.[3] To determine if the periodic startup/restarts of Units 5 and 7 would result in emissions above these levels, we examined the minute by minute CEMs data for a typical startup/restart of each unit. As shown by the detailed CEMS data included in Attachments 1 and 2, the maximum hourly NOx and CO emissions during a startup/restart for Unit 5 were approximately 55 lbs/hr and 753 lbs/hr, respectively. For Unit 7, the maximum hourly NOx and CO emissions during a startup/restart were approximately 19 lbs/hr and 224 lbs/hr, respectively. With the exception of the maximum hourly CO emissions for Unit 5, it appears that the actual maximum hourly NOx/CO emissions during a start/restart are below the annual average hourly startup/shutdown emission levels analyzed by the SCAQMD during the permitting of Units 5 and 7. While the maximum hourly CO emissions during the startup/restart of Unit 5 was above the annual average hourly startup emission level analyzed by the SCAQMD for purposes of calculating annual emissions, this emission level remains below the worst case short-term CO emission level of 823.3 lbs/hr for the startup/shutdown case analyzed for modeling purposes in the 2007 permit application package for the project (see Attachment 3).

We also looked at the total actual NOx and CO emissions to date for each unit (this includes emissions during all modes of operation including normal startups/shutdowns and aborted startups/restarts). The approximate totals as of noon yesterday are shown below.

- Unit 5 - NOx: 16,538 lbs, CO: 33,321 lbs
- Unit 7 - NOx: 20,304 lbs, CO: 36,569 lbs

These totals are only approximately 20% of the per unit maximum annual NOx and CO emission levels of 96,371 lbs and 175,246 lbs, respectively, analyzed during the SCAQMD permitting of Units 5 and 7.[3] Given that there are only approximately 4 months remaining in the current compliance year, the final annual emissions for each unit are projected to be well below the maximum levels analyzed by the SCAQMD.

Therefore, based on the above information, we believe that it is reasonable for the SCAQMD to allow a startup/restart event to be counted as a single startup event for purposes of tracking compliance with the 200 starts/year permit limit and request that the above startup clarification language be added to the new Title V permit.

[3] SCAQMD Engineering Evaluation for the El Segundo Power Redevelopment Project, Appendix C, May 18, 2010.

If you have any questions or need any additional information, please do not hesitate to contact us.

Sincerely,

Tom Andrews

Attachments

cc: George Piantka, NRG Energy
Robert Mason, CH2M Hill
John McKinsey, Locke Lord

ATTACHMENT 1

SUMMARY OF CEMS DATA FOR UNIT 5
(START/RESTART)

Average Values Report
Generated: 9/9/2014 09:44

Company: NRG El Segundo
Plant: 301 Vista Del Mar
City/St: El Segundo, CA 90245
Source: stack5

Period Start: 5/7/2014 00:00
Period End: 5/7/2014 23:59
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Calculated Rolling-60 min Avg. NOx (lbs/hr)	Calculated Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 00:00	0	0.00	0.00	0							
05/07/2014 00:01	0	0.00	0.00	0							
05/07/2014 00:02	0	0.00	0.00	0							
05/07/2014 00:03	0	0.00	0.00	0							
05/07/2014 00:04	0	0.00	0.00	0							
05/07/2014 00:05	0	0.00	0.00	0							
05/07/2014 00:06	0	0.00	0.00	0							
05/07/2014 00:07	0	0.00	0.00	0							
05/07/2014 00:08	0	0.00	0.00	0							
05/07/2014 00:09	0	0.00	0.00	0							
05/07/2014 00:10	0	0.00	0.00	0							
05/07/2014 00:11	-10	0.00	0.00	0							
05/07/2014 00:12	-10	0.00	0.00	0							
05/07/2014 00:13	0	0.00	0.00	0							
05/07/2014 00:14	-10	0.00	0.00	0							
05/07/2014 00:15	-10	0.00	0.00	0							
05/07/2014 00:16	0	0.00	0.00	0							
05/07/2014 00:17	0	0.00	0.00	0							
05/07/2014 00:18	0	0.00	0.00	0							
05/07/2014 00:19	-10	0.00	0.00	0							
05/07/2014 00:20	0	0.00	0.00	0							
05/07/2014 00:21	0	0.00	0.00	0							
05/07/2014 00:22	-10	0.00	0.00	0							
05/07/2014 00:23	0	0.00	0.00	0							
05/07/2014 00:24	0	0.00	0.00	0							
05/07/2014 00:25	0	0.00	0.00	0							
05/07/2014 00:26	0	0.00	0.00	0							
05/07/2014 00:27	0	0.00	0.00	0							
05/07/2014 00:28	0	0.00	0.00	0							
05/07/2014 00:29	0	0.00	0.00	0							
05/07/2014 00:30	0	0.00	0.00	0							
05/07/2014 00:31	0	0.00	0.00	0							
05/07/2014 00:32	0	0.00	0.00	0							
05/07/2014 00:33	0	0.00	0.00	0							
05/07/2014 00:34	-10	0.00	0.00	0							
05/07/2014 00:35	0	0.00	0.00	0							
05/07/2014 00:36	0	0.00	0.00	0							
05/07/2014 00:37	0	0.00	0.00	0							
05/07/2014 00:38	0	0.00	0.00	0							
05/07/2014 00:39	0	0.00	0.00	0							
05/07/2014 00:40	0	0.00	0.00	0							
05/07/2014 00:41	0	0.00	0.00	0							
05/07/2014 00:42	0	0.00	0.00	0							
05/07/2014 00:43	0	0.00	0.00	0							
05/07/2014 00:44	0	0.00	0.00	0							
05/07/2014 00:45	0	0.00	0.00	0							
05/07/2014 00:46	0	0.00	0.00	0							
05/07/2014 00:47	0	0.00	0.00	0							
05/07/2014 00:48	0	0.00	0.00	0							
05/07/2014 00:49	0	0.00	0.00	0							
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05/07/2014 00:51	0	0.00	0.00	0							
05/07/2014 00:52	0	0.00	0.00	0							
05/07/2014 00:53	0	0.00	0.00	0							
05/07/2014 00:54	-10	0.00	0.00	0							
05/07/2014 00:55	0	0.00	0.00	0							
05/07/2014 00:56	0	0.00	0.00	0							
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05/07/2014 00:59	-10	0.00	0.00	0							
05/07/2014 01:00	0	0.00	0.00	0							
05/07/2014 01:01	-10	0.00	0.00	0							
05/07/2014 01:02	0	0.00	0.00	0							
05/07/2014 01:03	0	0.00	0.00	0							
05/07/2014 01:04	0	0.00	0.00	0							
05/07/2014 01:05	-10	0.00	0.00	0							
05/07/2014 01:06	0	0.00	0.00	0							
05/07/2014 01:07	0	0.00	0.00	0							

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 01:08	-10	0.00	0.00	0							
05/07/2014 01:09	-10	0.00	0.00	0							
05/07/2014 01:10	0	0.00	0.00	0							
05/07/2014 01:11	0	0.00	0.00	0							
05/07/2014 01:12	0	0.00	0.00	0							
05/07/2014 01:13	0	0.00	0.00	0							
05/07/2014 01:14	0	0.00	0.00	0							
05/07/2014 01:15	0	0.00	0.00	0							
05/07/2014 01:16	-10	0.00	0.00	0							
05/07/2014 01:17	-10	0.00	0.00	0							
05/07/2014 01:18	0	0.00	0.00	0							
05/07/2014 01:19	0	0.00	0.00	0							
05/07/2014 01:20	0	0.00	0.00	0							
05/07/2014 01:21	0	0.00	0.00	0							
05/07/2014 01:22	-10	0.00	0.00	0							
05/07/2014 01:23	0	0.00	0.00	0							
05/07/2014 01:24	-10	0.00	0.00	0							
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05/07/2014 01:26	0	0.00	0.00	0							
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05/07/2014 01:28	0	0.00	0.00	0							
05/07/2014 01:29	0	0.00	0.00	0							
05/07/2014 01:30	0	0.00	0.00	0							
05/07/2014 01:31	0	0.00	0.00	0							
05/07/2014 01:32	0	0.00	0.00	0							
05/07/2014 01:33	0	0.00	0.00	0							
05/07/2014 01:34	0	0.00	0.00	0							
05/07/2014 01:35	0	0.00	0.00	0							
05/07/2014 01:36	0	0.00	0.00	0							
05/07/2014 01:37	-10	0.00	0.00	0							
05/07/2014 01:38	0	0.00	0.00	0							
05/07/2014 01:39	0	0.00	0.00	0							
05/07/2014 01:40	-10	0.00	0.00	0							
05/07/2014 01:41	0	0.00	0.00	0							
05/07/2014 01:42	-10	0.00	0.00	0							
05/07/2014 01:43	0	0.00	0.00	0							
05/07/2014 01:44	-10	0.00	0.00	0							
05/07/2014 01:45	0	0.00	0.00	0							
05/07/2014 01:46	0	0.00	0.00	0							
05/07/2014 01:47	0	0.00	0.00	0							
05/07/2014 01:48	0	0.00	0.00	0							
05/07/2014 01:49	-10	0.00	0.00	0							
05/07/2014 01:50	0	0.00	0.00	0							
05/07/2014 01:51	-10	0.00	0.00	0							
05/07/2014 01:52	0	0.00	0.00	0							
05/07/2014 01:53	0	0.00	0.00	0							
05/07/2014 01:54	0	0.00	0.00	0							
05/07/2014 01:55	0	0.00	0.00	0							
05/07/2014 01:56	0	0.00	0.00	0							
05/07/2014 01:57	0	0.00	0.00	0							
05/07/2014 01:58	0	0.00	0.00	0							
05/07/2014 01:59	-10	0.00	0.00	0							
05/07/2014 02:00	0	0.00	0.00	0							
05/07/2014 02:01	0	0.00	0.00	0							
05/07/2014 02:02	0	0.00	0.00	0							
05/07/2014 02:03	0	0.00	0.00	0							
05/07/2014 02:04	0	0.00	0.00	0							
05/07/2014 02:05	0	0.00	0.00	0							
05/07/2014 02:06	0	0.00	0.00	0							
05/07/2014 02:07	0	0.00	0.00	0							
05/07/2014 02:08	0	0.00	0.00	0							
05/07/2014 02:09	-10	0.00	0.00	0							
05/07/2014 02:10	0	0.00	0.00	0							
05/07/2014 02:11	0	0.00	0.00	0							
05/07/2014 02:12	0	0.00	0.00	0							
05/07/2014 02:13	0	0.00	0.00	0							
05/07/2014 02:14	0	0.00	0.00	0							
05/07/2014 02:15	0	0.00	0.00	0							
05/07/2014 02:16	0	0.00	0.00	0							
05/07/2014 02:17	0	0.00	0.00	0							
05/07/2014 02:18	0	0.00	0.00	0							
05/07/2014 02:19	0	0.00	0.00	0							
05/07/2014 02:20	0	0.00	0.00	0							
05/07/2014 02:21	0	0.00	0.00	0							
05/07/2014 02:22	0	0.00	0.00	0							
05/07/2014 02:23	0	0.00	0.00	0							
05/07/2014 02:24	0	0.00	0.00	0							

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 02:25	0	0.00	0.00	0							
05/07/2014 02:26	0	0.00	0.00	0							
05/07/2014 02:27	0	0.00	0.00	0							
05/07/2014 02:28	0	0.00	0.00	0							
05/07/2014 02:29	0	0.00	0.00	0							
05/07/2014 02:30	-10	0.00	0.00	0							
05/07/2014 02:31	0	0.00	0.00	0							
05/07/2014 02:32	0	0.00	0.00	0							
05/07/2014 02:33	0	0.00	0.00	0							
05/07/2014 02:34	-10	0.00	0.00	0							
05/07/2014 02:35	0	0.00	0.00	0							
05/07/2014 02:36	0	0.00	0.00	0							
05/07/2014 02:37	-10	0.00	0.00	0							
05/07/2014 02:38	-10	0.00	0.00	0							
05/07/2014 02:39	-10	0.00	0.00	0							
05/07/2014 02:40	-10	0.00	0.00	0							
05/07/2014 02:41	0	0.00	0.00	0							
05/07/2014 02:42	-10	0.00	0.00	0							
05/07/2014 02:43	-10	0.00	0.00	0							
05/07/2014 02:44	0	0.00	0.00	0							
05/07/2014 02:45	-10	0.00	0.00	0							
05/07/2014 02:46	0	0.00	0.00	0							
05/07/2014 02:47	0	0.00	0.00	0							
05/07/2014 02:48	-10	0.00	0.00	0							
05/07/2014 02:49	-10	0.00	0.00	0							
05/07/2014 02:50	-10	0.00	0.00	0							
05/07/2014 02:51	0	0.00	0.00	0							
05/07/2014 02:52	0	0.00	0.00	0							
05/07/2014 02:53	0	0.00	0.00	0							
05/07/2014 02:54	0	0.00	0.00	0							
05/07/2014 02:55	0	0.00	0.00	0							
05/07/2014 02:56	0	0.00	0.00	0							
05/07/2014 02:57	0	0.00	0.00	0							
05/07/2014 02:58	0	0.00	0.00	0							
05/07/2014 02:59	0	0.00	0.00	0							
05/07/2014 03:00	0	0.00	0.00	0							
05/07/2014 03:01	0	0.00	0.00	0							
05/07/2014 03:02	0	0.00	0.00	0							
05/07/2014 03:03	0	0.00	0.00	0							
05/07/2014 03:04	0	0.00	0.00	0							
05/07/2014 03:05	-10	0.00	0.00	0							
05/07/2014 03:06	0	0.00	0.00	0							
05/07/2014 03:07	0	0.00	0.00	0							
05/07/2014 03:08	0	0.00	0.00	0							
05/07/2014 03:09	0	0.00	0.00	0							
05/07/2014 03:10	-10	0.00	0.00	0							
05/07/2014 03:11	-10	0.00	0.00	0							
05/07/2014 03:12	0	0.00	0.00	0							
05/07/2014 03:13	0	0.00	0.00	0							
05/07/2014 03:14	0	0.00	0.00	0							
05/07/2014 03:15	0	0.00	0.00	0							
05/07/2014 03:16	0	0.00	0.00	0							
05/07/2014 03:17	0	0.00	0.00	0							
05/07/2014 03:18	0	0.00	0.00	0							
05/07/2014 03:19	0	0.00	0.00	0							
05/07/2014 03:20	0	0.00	0.00	0							
05/07/2014 03:21	-10	0.00	0.00	0							
05/07/2014 03:22	0	0.00	0.00	0							
05/07/2014 03:23	-10	0.00	0.00	0							
05/07/2014 03:24	0	0.00	0.00	0							
05/07/2014 03:25	0	0.00	0.00	0							
05/07/2014 03:26	0	0.00	0.00	0							
05/07/2014 03:27	-10	0.00	0.00	0							
05/07/2014 03:28	-10	0.00	0.00	0							
05/07/2014 03:29	-10	0.00	0.00	0							
05/07/2014 03:30	0	0.00	0.00	0							
05/07/2014 03:31	0	0.00	0.00	0							
05/07/2014 03:32	-10	0.00	0.00	0							
05/07/2014 03:33	0	0.00	0.00	0							
05/07/2014 03:34	-10	0.00	0.00	0							
05/07/2014 03:35	0	0.00	0.00	0							
05/07/2014 03:36	0	0.00	0.00	0							
05/07/2014 03:37	0	0.00	0.00	0							
05/07/2014 03:38	0	0.00	0.00	0							
05/07/2014 03:39	0	0.00	0.00	0							
05/07/2014 03:40	0	0.00	0.00	0							
05/07/2014 03:41	0	0.00	0.00	0							

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 03:42	-10	0.00	0.00	0							
05/07/2014 03:43	0	0.00	0.00	0							
05/07/2014 03:44	70	0.00	0.00	0							
05/07/2014 03:45	1560	0.00	0.00	1							
05/07/2014 03:46	2330	0.00	12.94	1							
05/07/2014 03:47	3670	5.13	521.64	1	374.34	1.3529	0.0133	0.1	8.7	0.1	8.7
05/07/2014 03:48	5090	24.64	1881.41	1	519.18	3.6238	0.0461	0.4	31.4	0.5	40.1
05/07/2014 03:49	6500	55.76	2848.30	1	663	4.2961	0.0817	0.9	47.5	1.4	87.5
05/07/2014 03:50	7220	84.98	4222.26	1	736.44	5.7333	0.1121	1.4	70.4	2.8	157.9
05/07/2014 03:51	7620	98.41	4392.15	1	777.24	5.6510	0.1230	1.6	73.2	4.5	231.1
05/07/2014 03:52	8230	120.38	3935.98	1	839.46	4.6887	0.1392	2.0	65.6	6.5	296.7
05/07/2014 03:53	8990	145.94	3184.66	1	916.98	3.4730	0.1546	2.4	53.1	8.9	349.8
05/07/2014 03:54	10100	172.76	3424.17	1	1030.2	3.3238	0.1629	2.9	57.1	11.8	406.8
05/07/2014 03:55	10620	173.29	6226.39	1	1083.24	5.7479	0.1554	2.9	103.8	14.7	510.6
05/07/2014 03:56	11130	171.21	5493.75	1	1135.26	4.8392	0.1465	2.9	91.6	17.5	602.2
05/07/2014 03:57	11760	179.91	4554.56	1	1199.52	3.7970	0.1456	3.0	75.9	20.5	678.1
05/07/2014 03:58	12320	182.66	1831.73	1	1256.64	1.4576	0.1412	3.0	30.5	23.6	708.6
05/07/2014 03:59	13030	166.92	176.22	1				2.8	2.9	26.4	711.6
05/07/2014 04:00	13550	100.31	38.27	1				1.7	0.6	28.0	712.2
05/07/2014 04:01	13640	90.09	7.73	1				1.5	0.1	29.5	712.3
05/07/2014 04:02	13610	76.46	5.29	1				1.3	0.1	30.8	712.4
05/07/2014 04:03	13500	58.83	4.68	1				1.0	0.1	31.8	712.5
05/07/2014 04:04	12300	55.92	3.62	1				0.9	0.1	32.7	712.5
05/07/2014 04:05	5490	38.68	19.02	1				0.6	0.3	33.4	712.9
05/07/2014 04:06	910	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:07	-10	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:08	-10	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:09	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:10	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:11	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:12	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:13	-10	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:14	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:15	0	0.00	0.00	0				0.0	0.0	33.4	712.9
05/07/2014 04:16	1700	248.29	550.52	1	173.4	3.1749	1.3909	4.1	9.2	37.5	722.0
05/07/2014 04:17	2340	5.28	7.81	1				0.1	0.1	37.6	722.2
05/07/2014 04:18	3680	19.40	13.68	1				0.3	0.2	37.9	722.4
05/07/2014 04:19	4920	39.36	58.17	1				0.7	1.0	38.6	723.4
05/07/2014 04:20	6090	84.03	126.81	1				1.4	2.1	40.0	725.5
05/07/2014 04:21	6520	116.86	222.15	1				1.9	3.7	41.9	729.2
05/07/2014 04:22	6670	123.27	307.48	1				2.1	5.1	44.0	734.3
05/07/2014 04:23	7530	127.38	336.52	1				2.1	5.6	46.1	739.9
05/07/2014 04:24	9390	128.97	275.29	1				2.1	4.6	48.3	744.5
05/07/2014 04:25	11600	120.22	243.48	1				2.0	4.1	50.3	748.6
05/07/2014 04:26	13280	109.46	195.49	1				1.8	3.3	52.1	751.8
05/07/2014 04:27	13550	52.22	17.93	1				0.9	0.3	53.0	752.1
05/07/2014 04:28	13610	32.30	3.29	1				0.5	0.1	53.5	752.2
05/07/2014 04:29	13500	21.69	3.12	1				0.4	0.1	53.9	752.2
05/07/2014 04:30	13470	12.02	2.83	1				0.2	0.0	54.1	752.3
05/07/2014 04:31	13460	8.06	2.83	1				0.1	0.0	54.2	752.3
05/07/2014 04:32	13440	6.49	2.68	1				0.1	0.0	54.3	752.4
05/07/2014 04:33	13430	5.64	2.68	1				0.1	0.0	54.4	752.4
05/07/2014 04:34	13420	5.07	2.68	1				0.1	0.0	54.5	752.5
05/07/2014 04:35	13410	4.79	2.39	1				0.1	0.0	54.6	752.5
05/07/2014 04:36	13410	4.65	2.39	1				0.1	0.0	54.6	752.5
05/07/2014 04:37	13390	4.50	2.11	1				0.1	0.0	54.7	752.6
05/07/2014 04:38	13400	4.50	2.11	1				0.1	0.0	54.8	752.6
05/07/2014 04:39	13400	4.36	2.11	1				0.1	0.0	54.9	752.6
05/07/2014 04:40	13390	4.36	2.11	1				0.1	0.0	54.9	752.7
05/07/2014 04:41	13330	4.34	2.10	1				0.1	0.0	55.0	752.7
05/07/2014 04:42	13320	4.34	2.10	1				0.1	0.0	55.1	752.7
05/07/2014 04:43	13340	4.48	2.10	1				0.1	0.0	55.1	752.8
05/07/2014 04:44	13560	4.70	2.14	1				0.1	0.0	55.2	752.8
05/07/2014 04:45	13610	4.72	2.14	1				0.1	0.0	55.3	752.9
05/07/2014 04:46	13610	4.86	1.86	1				0.1	0.0	55.4	752.9
05/07/2014 04:47	13630	5.15	1.86	1				0.1	0.0	55.4	744.2
05/07/2014 04:48	13640	5.30	1.58	1				0.1	0.0	55.1	712.9
05/07/2014 04:49	13630	5.44	1.57	1				0.1	0.0	54.2	665.4
05/07/2014 04:50	13670	5.60	1.58	1				0.1	0.0	52.9	595.1
05/07/2014 04:51	13680	5.75	1.58	1				0.1	0.0	51.4	521.9
05/07/2014 04:52	13660	5.88	1.58	1				0.1	0.0	49.4	456.3
05/07/2014 04:53	13680	6.03	1.58	1				0.1	0.0	47.1	403.3
05/07/2014 04:54	13660	6.17	1.29	1				0.1	0.0	44.3	346.2
05/07/2014 04:55	13660	6.17	1.58	1				0.1	0.0	41.6	242.5
05/07/2014 04:56	14820	6.85	1.40	1				0.1	0.0	38.8	151.0
05/07/2014 04:57	17080	7.35	1.61	1				0.1	0.0	35.9	75.1
05/07/2014 04:58	19040	9.80	1.20	1				0.2	0.0	33.1	44.6

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 04:59	19370	13.83	1.22	1				0.2	0.0	30.5	41.7
05/07/2014 05:00	19510	10.65	0.82	1				0.2	0.0	29.0	41.0
05/07/2014 05:01	19490	8.19	1.02	1				0.1	0.0	27.6	40.9
05/07/2014 05:02	19480	6.95	0.82	1				0.1	0.0	26.5	40.8
05/07/2014 05:03	19490	6.75	0.82	1				0.1	0.0	25.6	40.8
05/07/2014 05:04	19500	6.76	0.82	1				0.1	0.0	24.8	40.7
05/07/2014 05:05	19490	6.96	0.82	1				0.1	0.0	24.3	40.4
05/07/2014 05:06	19460	6.74	0.82	1				0.1	0.0	24.4	40.4
05/07/2014 05:07	19430	6.94	0.82	1				0.1	0.0	24.5	40.5
05/07/2014 05:08	19420	6.73	0.82	1				0.1	0.0	24.6	40.5
05/07/2014 05:09	19440	6.94	0.82	1				0.1	0.0	24.7	40.5
05/07/2014 05:10	19400	6.93	0.81	1				0.1	0.0	24.8	40.5
05/07/2014 05:11	19390	6.92	0.81	1				0.1	0.0	25.0	40.5
05/07/2014 05:12	19370	6.92	0.81	1				0.1	0.0	25.1	40.5
05/07/2014 05:13	19380	6.72	0.81	1				0.1	0.0	25.2	40.5
05/07/2014 05:14	19320	6.49	0.81	1				0.1	0.0	25.3	40.6
05/07/2014 05:15	19330	6.29	0.81	1				0.1	0.0	25.4	40.6
05/07/2014 05:16	19320	6.29	0.81	1				0.1	0.0	21.4	31.4
05/07/2014 05:17	19310	6.49	0.81	1				0.1	0.0	21.4	31.3
05/07/2014 05:18	19350	6.33	0.71	1	1973.7	0.0004	0.0032	0.1	0.0	21.2	31.1
05/07/2014 05:19	19290	6.31	0.71	1	1967.58	0.0004	0.0032	0.1	0.0	20.6	30.1
05/07/2014 05:20	19160	6.26	0.70	1	1954.32	0.0004	0.0032	0.1	0.0	19.3	28.0
05/07/2014 05:21	19120	6.25	0.70	1	1950.24	0.0004	0.0032	0.1	0.0	17.5	24.3
05/07/2014 05:22	19160	6.26	0.70	1	1954.32	0.0004	0.0032	0.1	0.0	15.5	19.2
05/07/2014 05:23	19370	6.33	0.71	1	1975.74	0.0004	0.0032	0.1	0.0	13.5	13.6
05/07/2014 05:24	19310	6.31	0.71	1	1969.62	0.0004	0.0032	0.1	0.0	11.5	9.0
05/07/2014 05:25	19320	6.32	0.71	1	1970.64	0.0004	0.0032	0.1	0.0	9.6	5.0
05/07/2014 05:26	19290	6.31	0.71	1	1967.58	0.0004	0.0032	0.1	0.0	7.8	1.7
05/07/2014 05:27	19310	6.31	0.71	1	1969.62	0.0004	0.0032	0.1	0.0	7.1	1.5
05/07/2014 05:28	19300	6.31	0.71	1	1968.6	0.0004	0.0032	0.1	0.0	6.6	1.4
05/07/2014 05:29	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.4	1.4
05/07/2014 05:30	19280	6.30	0.71	1	1966.56	0.0004	0.0032	0.1	0.0	6.3	1.3
05/07/2014 05:31	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.3	1.3
05/07/2014 05:32	19260	6.30	0.70	1	1964.52	0.0004	0.0032	0.1	0.0	6.3	1.3
05/07/2014 05:33	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.3	1.2
05/07/2014 05:34	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.3	1.2
05/07/2014 05:35	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.3	1.2
05/07/2014 05:36	19290	6.31	0.71	1	1967.58	0.0004	0.0032	0.1	0.0	6.3	1.1
05/07/2014 05:37	19290	6.31	0.71	1	1967.58	0.0004	0.0032	0.1	0.0	6.4	1.1
05/07/2014 05:38	19270	6.30	0.71	1	1965.54	0.0004	0.0032	0.1	0.0	6.4	1.1
05/07/2014 05:39	19250	6.29	0.70	1	1963.5	0.0004	0.0032	0.1	0.0	6.4	1.1
05/07/2014 05:40	19250	6.29	0.70	1	1963.5	0.0004	0.0032	0.1	0.0	6.5	1.1
05/07/2014 05:41	19250	6.29	0.70	1	1963.5	0.0004	0.0032	0.1	0.0	6.5	1.0
05/07/2014 05:42	19250	16.78	1.21	1				0.3	0.0	6.7	1.0
05/07/2014 05:43	19260	16.18	0.81	1				0.3	0.0	6.9	1.0
05/07/2014 05:44	19260	15.98	0.81	1				0.3	0.0	7.1	1.0
05/07/2014 05:45	19250	15.97	0.81	1				0.3	0.0	7.3	0.9
05/07/2014 05:46	19220	12.92	0.81	1				0.2	0.0	7.4	0.9
05/07/2014 05:47	19240	9.49	0.81	1				0.2	0.0	7.5	0.9
05/07/2014 05:48	19210	7.87	0.81	1				0.1	0.0	7.5	0.9
05/07/2014 05:49	19230	7.27	0.81	1				0.1	0.0	7.6	0.9
05/07/2014 05:50	19220	6.86	0.81	1				0.1	0.0	7.6	0.9
05/07/2014 05:51	19230	6.66	0.81	1				0.1	0.0	7.6	0.9
05/07/2014 05:52	19240	6.67	0.81	1				0.1	0.0	7.6	0.8
05/07/2014 05:53	19220	6.66	0.81	1				0.1	0.0	7.6	0.8
05/07/2014 05:54	19240	6.67	0.81	1				0.1	0.0	7.6	0.8
05/07/2014 05:55	19200	6.65	0.81	1				0.1	0.0	7.6	0.8
05/07/2014 05:56	19200	6.65	0.81	1				0.1	0.0	7.6	0.8
05/07/2014 05:57	19100	6.62	0.80	1				0.1	0.0	7.6	0.8
05/07/2014 05:58	18590	6.44	0.78	1				0.1	0.0	7.6	0.8
05/07/2014 05:59	18570	5.65	0.78	1				0.1	0.0	7.4	0.8
05/07/2014 06:00	18590	6.44	0.78	1				0.1	0.0	7.4	0.8
05/07/2014 06:01	18560	7.21	0.78	1				0.1	0.0	7.3	0.8
05/07/2014 06:02	18620	8.80	0.78	1				0.1	0.0	7.4	0.8
05/07/2014 06:03	18910	10.52	0.79	1				0.2	0.0	7.4	0.8
05/07/2014 06:04	19200	10.48	0.81	1				0.2	0.0	7.5	0.8
05/07/2014 06:05	18540	10.90	0.78	1				0.2	0.0	7.6	0.8
05/07/2014 06:06	16590	15.68	0.70	1				0.3	0.0	7.7	0.8
05/07/2014 06:07	14880	24.69	0.62	1				0.4	0.0	8.0	0.8
05/07/2014 06:08	13360	19.36	1.68	1				0.3	0.0	8.2	0.8
05/07/2014 06:09	11990	19.64	2.27	1				0.3	0.0	8.4	0.8
05/07/2014 06:10	10790	21.75	31.16	1				0.4	0.5	8.7	1.3
05/07/2014 06:11	8990	54.56	153.68	1				0.9	2.6	9.5	3.9
05/07/2014 06:12	-10	0.00	0.00	0				0.0	0.0	9.4	3.8
05/07/2014 06:13	-10	0.00	0.00	0				0.0	0.0	9.2	3.8
05/07/2014 06:14	-10	0.00	0.00	0				0.0	0.0	9.1	3.8
05/07/2014 06:15	0	0.00	0.00	0				0.0	0.0	9.0	3.8

Period Start:	Average 5_GasFlow hscfh	Average 5_NOX_LBHR #/hr	Average 5_CO_LBHR #/hr	Average 5_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
05/07/2014 06:16	0	0.00	0.00	0				0.0	0.0	8.9	3.8
05/07/2014 06:17	0	0.00	0.00	0				0.0	0.0	8.8	3.8
05/07/2014 06:18	0	0.00	0.00	0				0.0	0.0	8.7	3.8
05/07/2014 06:19	0	0.00	0.00	0				0.0	0.0	8.6	3.8
05/07/2014 06:20	0	0.00	0.00	0				0.0	0.0	8.5	3.7
05/07/2014 06:21	0	0.00	0.00	0				0.0	0.0	8.4	3.7
								Maximum =		**55.4**	**752.9**

Notes:

* Does not include Invalid Averaging Periods ("N/A")

** Yellow highlight cells are manually calculated emissions based on heat input and NOx and CO ppm levels to replace "N/A" in cells.
During daily calibrations when NOx/CO ppm values are shown as "N/A", the NOx/CO ppm value just prior to start of calibration was used to manually calcualte emissions.

ATTACHMENT 2

SUMMARY OF CEMS DATA FOR UNIT 7
(START/RESTART)

Period Start:	Average 7_GasFlow hscfh	Average 7_NOX_LBHR #/hr	Average 7_CO_LBHR #/hr	Average 7_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
06/20/2014 07:00	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:01	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:02	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:03	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:04	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:05	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:06	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:07	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:08	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:09	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:10	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:11	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:12	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:13	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:14	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:15	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:16	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:17	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:18	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:19	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:20	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:21	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:22	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:23	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:24	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:25	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:26	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:27	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:28	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:29	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:30	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:31	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:32	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:33	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:34	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:35	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:36	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:37	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:38	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:39	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:40	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:41	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:42	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:43	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:44	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:45	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:46	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:47	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:48	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:49	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:50	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:51	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:52	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:53	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:54	0	0.00	0.00	0				0.0	0.0		
06/20/2014 07:55	490	0.00	0.00	1				0.0	0.0		
06/20/2014 07:56	430	0.00	0.00	1				0.0	0.0		
06/20/2014 07:57	430	0.45	17.67	1				0.0	0.3	0.0	0.3
06/20/2014 07:58	1450	4.80	523.00	1				0.1	8.7	0.1	9.0
06/20/2014 07:59	3730	30.51	1564.97	1	380.46	4.1134	0.0791	0.5	26.1	0.6	35.1
06/20/2014 08:00	3500	43.88	1969.87	1	357.00	5.5178	0.1211	0.7	32.8	1.3	67.9
06/20/2014 08:01	2190	0.00	0.00	1				0.0	0.0	1.3	67.9
06/20/2014 08:02	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:03	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:04	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:05	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:06	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:07	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:08	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:09	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:10	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:11	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:12	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:13	0	0.00	0.00	0				0.0	0.0	1.3	67.9
06/20/2014 08:14	540	0.00	0.00	1				0.0	0.0	1.3	67.9
06/20/2014 08:15	430	0.00	0.00	1				0.0	0.0	1.3	67.9
06/20/2014 08:16	430	0.66	1.48	1				0.0	0.0	1.3	67.9

Period Start:	Average 7_GasFlow hscfh	Average 7_NOX_LBHR #/hr	Average 7_CO_LBHR #/hr	Average 7_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
06/20/2014 08:17	1970	6.99	31.22	1				0.1	0.5	1.5	68.5
06/20/2014 08:18	3470	26.27	530.65	1	353.94	1.4993	0.0732	0.4	8.8	1.9	77.3
06/20/2014 08:19	3790	49.23	1915.72	1	386.58	4.9555	0.1255	0.8	31.9	2.7	109.2
06/20/2014 08:20	4130	61.85	2329.86	1	421.26	5.5307	0.1447	1.0	38.8	3.7	148.1
06/20/2014 08:21	4560	68.42	2033.21	1	465.12	4.3714	0.1450	1.1	33.9	4.9	182.0
06/20/2014 08:22	5470	79.61	896.87	1	557.94	1.6075	0.1406	1.3	14.9	6.2	196.9
06/20/2014 08:23	6050	79.35	305.64	1				1.3	5.1	7.5	202.0
06/20/2014 08:24	7140	93.19	210.44	1				1.6	3.5	9.1	205.5
06/20/2014 08:25	7980	90.49	334.49	1				1.5	5.6	10.6	211.1
06/20/2014 08:26	8970	85.34	357.64	1				1.4	6.0	12.0	217.0
06/20/2014 08:27	10370	92.67	270.37	1				1.5	4.5	13.6	221.6
06/20/2014 08:28	11450	64.92	114.22	1				1.1	1.9	14.6	223.5
06/20/2014 08:29	12020	32.69	16.03	1				0.5	0.3	15.2	223.7
06/20/2014 08:30	12120	23.42	2.55	1				0.4	0.0	15.6	223.8
06/20/2014 08:31	12130	18.72	1.40	1				0.3	0.0	15.9	223.8
06/20/2014 08:32	12110	11.70	1.40	1				0.2	0.0	16.1	223.8
06/20/2014 08:33	12120	8.27	1.40	1				0.1	0.0	16.2	223.8
06/20/2014 08:34	12110	6.36	1.40	1				0.1	0.0	16.3	223.9
06/20/2014 08:35	12120	5.60	1.15	1				0.1	0.0	16.4	223.9
06/20/2014 08:36	12120	5.34	1.15	1				0.1	0.0	16.5	223.9
06/20/2014 08:37	12120	5.09	1.15	1				0.1	0.0	16.6	223.9
06/20/2014 08:38	12130	5.09	1.15	1				0.1	0.0	16.7	223.9
06/20/2014 08:39	12130	4.97	1.15	1				0.1	0.0	16.8	224.0
06/20/2014 08:40	12140	4.84	1.15	1				0.1	0.0	16.8	224.0
06/20/2014 08:41	12130	4.71	1.15	1				0.1	0.0	16.9	224.0
06/20/2014 08:42	12130	4.84	1.02	1				0.1	0.0	17.0	224.0
06/20/2014 08:43	12120	4.71	1.02	1				0.1	0.0	17.1	224.0
06/20/2014 08:44	12110	4.70	1.02	1				0.1	0.0	17.2	224.0
06/20/2014 08:45	12130	4.71	1.02	1				0.1	0.0	17.2	224.1
06/20/2014 08:46	12130	4.97	1.02	1				0.1	0.0	17.3	224.1
06/20/2014 08:47	12130	4.97	1.02	1				0.1	0.0	17.4	224.1
06/20/2014 08:48	12130	5.09	1.02	1				0.1	0.0	17.5	224.1
06/20/2014 08:49	12140	5.23	1.02	1				0.1	0.0	17.6	224.1
06/20/2014 08:50	12130	5.22	1.02	1				0.1	0.0	17.7	224.1
06/20/2014 08:51	12130	5.22	1.02	1				0.1	0.0	17.8	224.2
06/20/2014 08:52	12590	5.68	1.06	1				0.1	0.0	17.8	224.2
06/20/2014 08:53	13350	7.43	1.12	1				0.1	0.0	18.0	224.2
06/20/2014 08:54	13510	7.80	0.85	1				0.1	0.0	18.1	224.2
06/20/2014 08:55	13000	7.37	0.55	1				0.1	0.0	18.2	224.2
06/20/2014 08:56	11750	5.92	0.49	1				0.1	0.0	18.3	224.2
06/20/2014 08:57	11240	5.66	0.47	1				0.1	0.0	18.4	223.9
06/20/2014 08:58	11160	4.57	0.70	1				0.1	0.0	18.4	215.2
06/20/2014 08:59	11330	4.64	1.19	1				0.1	0.0	18.0	189.2
06/20/2014 09:00	11460	5.17	1.20	1				0.1	0.0	17.3	156.4
06/20/2014 09:01	11520	5.20	1.21	1				0.1	0.0	17.4	156.4
06/20/2014 09:02	11530	5.08	1.21	1				0.1	0.0	17.5	156.4
06/20/2014 09:03	11550	5.09	1.21	1				0.1	0.0	17.6	156.4
06/20/2014 09:04	11530	5.08	1.21	1				0.1	0.0	17.7	156.4
06/20/2014 09:05	11540	4.85	1.33	1				0.1	0.0	17.7	156.5
06/20/2014 09:06	11530	4.84	1.33	1				0.1	0.0	17.8	156.5
06/20/2014 09:07	11530	4.84	1.33	1				0.1	0.0	17.9	156.5
06/20/2014 09:08	11540	4.85	1.33	1				0.1	0.0	18.0	156.5
06/20/2014 09:09	11520	4.72	1.33	1				0.1	0.0	18.1	156.6
06/20/2014 09:10	11500	4.71	1.57	1				0.1	0.0	18.1	156.6
06/20/2014 09:11	11510	4.83	1.33	1				0.1	0.0	18.2	156.6
06/20/2014 09:12	11510	4.83	1.57	1				0.1	0.0	18.3	156.6
06/20/2014 09:13	11500	4.83	1.57	1				0.1	0.0	18.4	156.7
06/20/2014 09:14	11510	4.83	1.57	1				0.1	0.0	18.5	156.7
06/20/2014 09:15	11500	4.95	1.57	1				0.1	0.0	18.6	156.7
06/20/2014 09:16	11500	4.95	1.57	1				0.1	0.0	18.6	156.7
06/20/2014 09:17	11530	5.21	1.33	1				0.1	0.0	18.6	156.2
06/20/2014 09:18	11510	5.20	1.33	1				0.1	0.0	18.2	147.4
06/20/2014 09:19	11530	5.21	1.33	1				0.1	0.0	17.5	115.5
06/20/2014 09:20	11540	5.57	1.33	1				0.1	0.0	16.6	76.7
06/20/2014 09:21	11580	5.35	1.34	1				0.1	0.0	15.5	42.8
06/20/2014 09:22	12890	5.68	1.76	1				0.1	0.0	14.3	27.9
06/20/2014 09:23	13830	6.10	1.89	1				0.1	0.0	13.1	22.8
06/20/2014 09:24	13800	6.81	0.87	1				0.1	0.0	11.6	19.3
06/20/2014 09:25	13740	7.07	0.58	1				0.1	0.0	10.2	13.8
06/20/2014 09:26	13830	7.26	0.58	1				0.1	0.0	8.9	7.8
06/20/2014 09:27	15120	8.10	0.64	1				0.1	0.0	7.5	3.3
06/20/2014 09:28	16770	9.33	0.35	1				0.2	0.0	6.6	1.4
06/20/2014 09:29	16790	8.29	0.35	1				0.1	0.0	6.2	1.2
06/20/2014 09:30	16800	7.41	0.35	1				0.1	0.0	5.9	1.1
06/20/2014 09:31	16620	6.98	0.35	1				0.1	0.0	5.7	1.1
06/20/2014 09:32	15040	6.00	0.32	1				0.1	0.0	5.6	1.1
06/20/2014 09:33	13550	5.12	0.28	1				0.1	0.0	5.6	1.1

Period Start:	Average 7_GasFlow hscfh	Average 7_NOX_LBHR #/hr	Average 7_CO_LBHR #/hr	Average 7_ProcOn 1=ON	Calculated Heat Input (MMBtu/hr)	Calculated CO Emiss. Factor (lbs/MMBtu)	Calculated NOx Emiss. Factor (lbs/MMBtu)	Calculated NOx (lbs/min)	Calculated CO (lbs/min)	Rolling-60 min Avg. NOx (lbs/hr)	Rolling-60 min Avg. CO (lbs/hr)
06/20/2014 09:34	13420	5.01	0.25	1	1368.84	0.0002	0.0037	0.1	0.0	5.6	1.1
06/20/2014 09:35	13470	5.03	0.25	1	1373.94	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:36	13600	5.08	0.25	1	1387.20	0.0002	0.0037	0.1	0.0	5.5	1.0
06/20/2014 09:37	14200	5.31	0.26	1	1448.40	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:38	14310	5.35	0.27	1	1459.62	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:39	14350	5.36	0.27	1	1463.70	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:40	14330	5.35	0.27	1	1461.66	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:41	14410	5.38	0.27	1	1469.82	0.0002	0.0037	0.1	0.0	5.6	1.0
06/20/2014 09:42	14960	5.59	0.28	1	1525.92	0.0002	0.0037	0.1	0.0	5.6	0.9
06/20/2014 09:43	14990	5.60	0.28	1	1528.98	0.0002	0.0037	0.1	0.0	5.6	0.9
06/20/2014 09:44	15020	5.61	0.28	1	1532.04	0.0002	0.0037	0.1	0.0	5.6	0.9
06/20/2014 09:45	15000	5.60	0.28	1	1530.00	0.0002	0.0037	0.1	0.0	5.6	0.9
06/20/2014 09:46	15030	5.62	0.28	1	1533.06	0.0002	0.0037	0.1	0.0	5.7	0.9
06/20/2014 09:47	15640	5.84	0.29	1	1595.28	0.0002	0.0037	0.1	0.0	5.7	0.9
06/20/2014 09:48	15680	5.86	0.29	1	1599.36	0.0002	0.0037	0.1	0.0	5.7	0.9
06/20/2014 09:49	15670	5.85	0.29	1	1598.34	0.0002	0.0037	0.1	0.0	5.7	0.9
06/20/2014 09:50	15670	5.85	0.29	1	1598.34	0.0002	0.0037	0.1	0.0	5.7	0.8
06/20/2014 09:51	15580	5.82	0.29	1	1589.16	0.0002	0.0037	0.1	0.0	5.7	0.8
06/20/2014 09:52	14460	5.40	0.27	1	1474.92	0.0002	0.0037	0.1	0.0	5.7	0.8
06/20/2014 09:53	14160	5.29	0.26	1	1444.32	0.0002	0.0037	0.1	0.0	5.7	0.8
06/20/2014 09:54	14170	5.29	0.26	1	1445.34	0.0002	0.0037	0.1	0.0	5.6	0.8
06/20/2014 09:55	14210	5.31	0.26	1	1449.42	0.0002	0.0037	0.1	0.0	5.6	0.8
06/20/2014 09:56	14190	5.30	0.26	1	1447.38	0.0002	0.0037	0.1	0.0	5.6	0.8
06/20/2014 09:57	14190	5.30	0.26	1	1447.38	0.0002	0.0037	0.1	0.0	5.6	0.8
06/20/2014 09:58	14250	5.32	0.26	1	1453.50	0.0002	0.0037	0.1	0.0	5.6	0.8
06/20/2014 09:59	14280	2.10	0.60	1				0.0	0.0	5.5	0.8
06/20/2014 10:00	14270	2.10	0.60	1				0.0	0.0	5.5	0.8
								Maximum =		**18.6**	**224.2**

Notes:

* Does not include Invalid Averaging Periods ("N/A")
** Yellow highlight cells are manually calculated emissions based on heat input and NOx and CO ppm levels to replace "N/A" in cells
During daily calibrations when NOx/CO ppm values are shown as "N/A", the NOx/CO ppm value just prior to start of calibration was used to manually calculate emissions

ATTACHMENT 3

2007 PERMIT APPLICATION FOR ESPR PROJECT

El Segundo Power II LLC
1819 Aston Avenue, Suite 105
Carlsbad, CA 92008

Direct Phone: 760.710.2144

June 21, 2007

Mr. Ken Coats
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Re: El Segundo Power Redevelopment Project (Facility ID No. 115663)- Application for Permit to Construct and Permit to Operate

Dear Mr. Coats:

El Segundo Power II LLC ("ESP") hereby submits the enclosed application for a Permit to Construct and Permit to Operate. This application is being submitted as part of a Petition to Amend ("Petition") process initiated with the California Energy Commission ("CEC") on June 19, 2007. The Petition was submitted to make amendments to the CEC's Final Decision approving the El Segundo Power Redevelopment Project ("ESPR"). This process will ultimately amend the CEC's Final Decision of the ESPR project as part of 00-AFC-14, which was an Application for Certification initially submitted to the CEC on December 21, 2000 and certified by the CEC on February 2, 2005.

The CEC's Final Decision provided for the conversion of Units 1 and 2 of the El Segundo Generating Station to a combined-cycle facility, which would have, among other things, used an existing system to draw sea water from the Santa Monica Bay for once-through cooling. Modifications identified in the CEC Petition will result in the elimination of once-through cooling. Additionally four other modifications to the project are proposed: 1) modification of the plant design to Rapid Response Combined Cycle technology ("R2C2") from Siemens Corporation; 2) modification of the method of delivery of oversized equipment to include delivery by barge over El Segundo Beach; 3) addition of an offsite laydown area for equipment staging and construction employee parking; and, 4) modification of the plant's access road configuration.

Only the first modification described above, change of design to R2C2, requires evaluation and action by the South Coast Air Quality Management District (District). The project change involves converting from the previously permitted two-on-one (two combustion gas turbines and one steam turbine) power block configuration to the proposed dual-train one-on-one (two individual combustion gas turbines connected to individual steam turbines) combined cycle power block configuration. The new technology will allow for rapid gas turbine startups and delivery of electrical power to the electrical grid within 10 minutes. This rapid start feature is unique to this highly efficient combined cycle configuration from Siemens, representing maximum flexibility to respond to peak electrical demand situations and provide efficient and

clean power to the region. The new design has the added benefit of significantly reduced air emissions during gas turbine startups as compared with traditional combined cycle units, due to the substantially shorter gas turbine startup duration.

This submittal represents a complete, new PTC application including all relevant forms, filing fee check, emissions summary tables and calculations, BACT summary, offsets summary, and air dispersion modeling results. The existing open Application Nos. 378766, 378767, 378769, 378771, 378773, 379904, and 379905 for the ESPR project will replaced, and/or enhanced where relevant, by these new application forms and information. The original and expected amendment of the CEC Decision for 00-AFC-14 will remain the basis of environmental review complying with the California Environmental Quality Act for this new PTC application.

It is expected that the process of evaluation and approval of the CEC Petition to Amend will be expedited due to the limited nature of the project changes and reduction in environmental impacts relative to the original project. Therefore, ESP requests expedited review from the District and the necessary Expedited Review Fees are included as part of this application to help accomplish that goal. A check in the amount of $34,387.94 is included with this application, based on the enclosed Fee Calculation Worksheet.

With approval of this design change to the R2C2 configuration, the ESPR project will bring additional enhancements to the already permitted project, including modernization of the existing, less efficient 1950s steam plant (Units 1 & 2) and provide much needed additional power in the western Southern California Edison load center.

On behalf of ESP II LLC, we look forward to your review of this application and the process toward its approval.

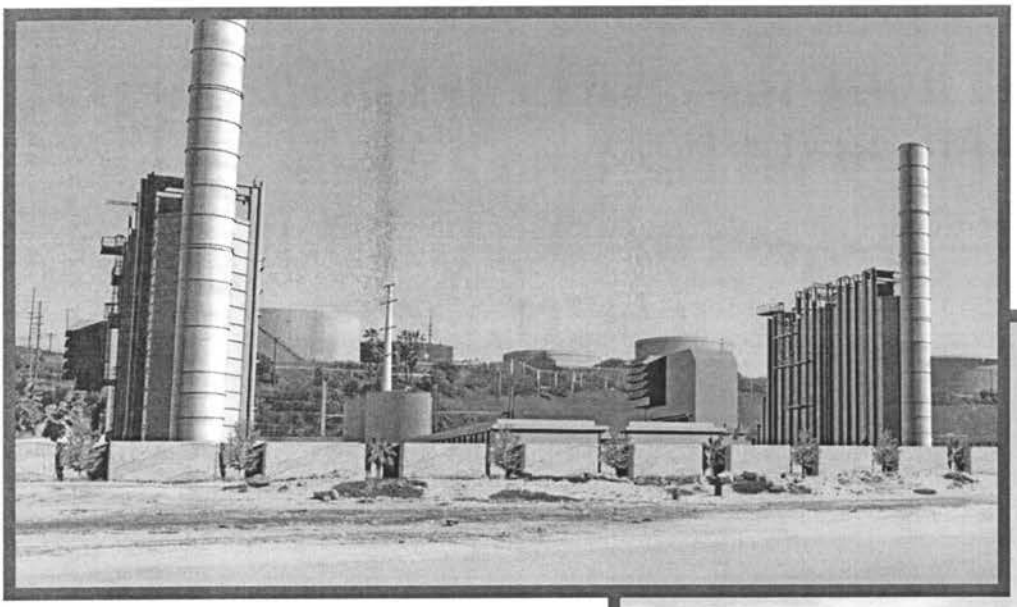
Sincerely,
El Segundo Power II LLC

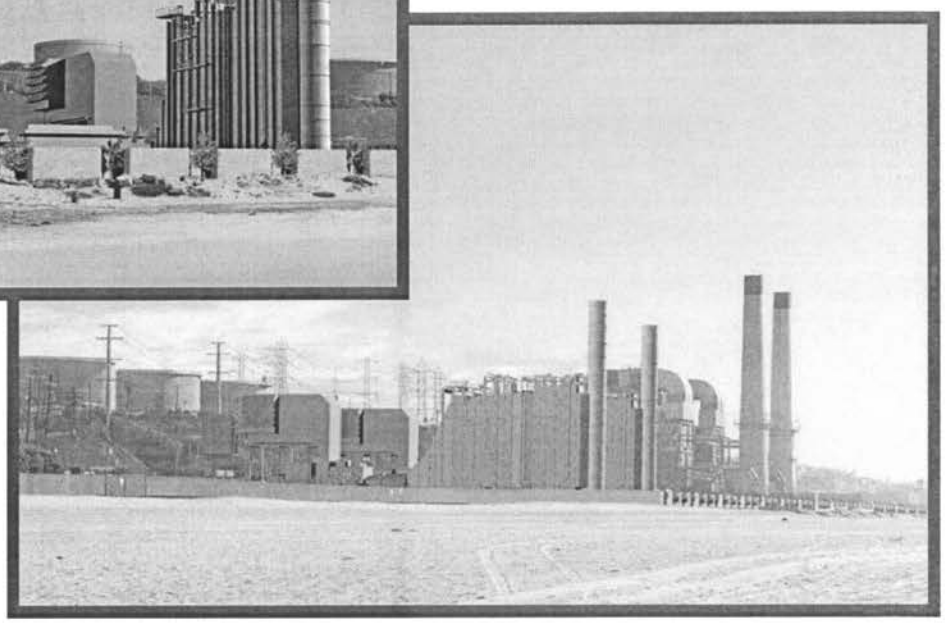
Tim Hemig
Director, Environmental & New Business

cc: Christopher Meyer, California Energy Commission

Application for a Determination of Compliance and Permit to Construct for the El Segundo Power Redevelopment Project (Facility ID No. 115663)

June 21, 2007





Submitted to:
South Coast Air Quality Management District

NRG

commissioning schedule will comprise five (5) distinct phases in which each of the CTGs will be operated at zero, 50% and full load while varying the degree of SCR and oxidation catalyst system control. It will be assumed that the commissioning of the units will be simultaneous to address the worst-case scenario. However, it may turn out that each unit is commissioning separately with the commissioning period for the second CTG beginning when the commissioning schedule for the first CTG is ending. The detailed commissioning schedule for each CTG is included as Appendix G.

Start-Up and Shutdown Emissions

The applicant expects that there will be up to 200 hours per year during which a CTG startup will occur. During a CTG startup, there are approximately 12 minutes with elevated emissions (emissions higher then during normal operation). Consequently, the hourly emission rates during CTG startups are based on 12 minutes of elevated emissions followed by 48 minutes of normal operating emission levels. The applicant has also indicated that there will be up to 200 hours per year during which a CTG shutdown will occur. During a CTG shutdown, there are approximately seven minutes with elevated emissions (emissions higher then during normal operation). Consequently, the hourly emission rates during CTG shutdowns are based on 53 minutes of normal operating emission levels followed by seven minutes of elevated emission levels. The applicant also expects that periodically there could be an hour when both a startup and shutdown occurs. For this hour, there would be 12 minutes of elevated emissions due to the startup, 41 minutes of normal operation emissions, followed by seven minutes of elevated emissions due to a shutdown. While this situation is expected to occur very infrequently, from an hourly emission standpoint this would represent worst case hourly emissions, and as such it is included in the ambient air impact analysis for the proposed project. The detailed CTG startup hourly emission calculations are shown in Appendix H. The applicant expects that there could be as many as two startup hours and two shutdown hours per day per CTG. During start-up/shutdown operations, the CTG is assumed to operate at elevated NOx and CO average concentration rates due to the phased-in effectiveness of the DLN combustors, SCR systems, and oxidation catalysts. Included as Appendix I are the CTG vendor supplied startup/shutdown emission levels for the Siemens CTGs.

Normal Operations

The emissions during normal operations are assumed to be fully controlled to Best Available Control Technology (BACT) levels, and exclude emissions due to commissioning, startup and shutdown periods, which are not subject to BACT levels. Hourly, monthly, annual, and 30-day averages are calculated and shown in Appendices D, E, and F.

Emissions During A Commissioning Year

Tables 6 through 8 below show the cumulative emissions during a commissioning year for the two CTGs which include commissioning, startup, shutdown and normal operation. Enclosed as Appendices D, E, and F are the detailed hourly, monthly, and annual emission calculations.

Appendix H - ESPR
CTG Hourly Emissions - Startup/Shutdown Emissions

PAGES	PAGE	A/N
BY	DATE	

CTG Startup, Shutdown, Startup/Shutdown Hourly Emissions

	Startup Hour		Shutdown Hour		Startup/Shutdown Hour	
Pollutant	Max. Hour Emissions (lbs/hr)	Avg. Hour Emissions (lbs/hr)	Max. Hour Emissions (lbs/hr)	Avg. Hour Emissions (lbs/hr)	Max. Hour Emissions (lbs/hr)	Avg. Hour Emissions (lbs/hr)
CO	556.56	417.42	294.91	221.18	823.27	617.45
NOx	74.71	56.03	47.28	35.46	91.10	68.33
VOC	17.30	17.30	9.74	9.74	21.67	21.67
PM10[1]	9.50	9.50	9.50	9.50	9.50	9.50
SOx[1] (short-term)	4.37	N/A	4.37	N/A	4.37	N/A
SOx[1] (long-term)	N/A	1.46	N/A	1.46	N/A	1.46
NH3	14.27	14.27	14.27	14.27	14.27	14.27

[1] Start-ups/shutdowns do not significantly affect SOx, PM10, or NH3 emissions.
Therefore, PM10, SOx, and NH3 during start-up are assumed to be equal to normal operation (average temp. peak)