DOCKETED

Docket Number:	00-AFC-14C
Project Title:	El Segundo Power Redevelopment Project Compliance
TN #:	202293
Document Title:	Project Owner's Comments Regarding Preliminary Staff Assessment
Description:	N/A
Filer:	Dee Hutchinson
Organization:	Locke Lord LLP
Submitter Role:	Applicant Representative
Submission Date:	5/5/2014 4:38:51 PM
Docketed Date:	5/5/2014

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May 5, 2014

VIA E-FILING

El Segundo Energy Center Petition to Amend (00-AFC-14C) Committee
Commissioner Karen Douglas – Presiding Member
Commissioner Janea A. Scott – Associate Member
Paul Kramer – Hearing Officer
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: El Segundo Energy Center Petition to Amend (00-AFC-14C)
Project Owner's Comments Regarding Preliminary Staff Assessment

Dear Committee Members:

On March 25, 2014, the California Energy Commission ("**CEC**") staff ("**Staff**") issued its Preliminary Staff Assessment for the El Segundo Power Facility Modification Amendment to the El Segundo Energy Center (the "**PSA**") for the Petition to Amend (the "**PTA**") the El Segundo Energy Center (00-AFC-14C) (the "**Project**"). On April 11, 2014, Staff docketed its Request for Comments on the Preliminary Staff Assessment Errata of the El Segundo Power Facility Modification Amendment for the El Segundo Energy Center (00-AFC-14C) (the "**Errata**"), in which the CEC extended the PSA review and comment period to May 5, 2014. Accordingly, this letter constitutes El Segundo Energy Center LLC's ("**Project Owner**") comments on the PSA. Capitalized terms not defined herein have the meaning given to them in the PTA.

Project Owner appreciates Staff's careful review of the PTA, including Staff's thorough examination of the environmental impact analysis contained in the PTA and Project Owner's data responses. Project Owner has no comments on the majority of the PSA, and makes herein comments on several key issues that are either in response to the PSA or resulting from the comments and discussion that occurred at a Staff workshop on the PSA. Project Owner's comments on the proposed Conditions of Certification of the Project ("**COCs**") include underlining (example) for proposed additional language and interlineation (~~example~~) for proposed deletion of language.

Project Owner raises important objections or proposes important changes to COCs in Air Quality, Biological Resources, Cultural Resources, Hazardous Materials Management, Noise, Visual Resources, and Compliance. Project Owner anticipates a responsive Final Staff Assessment that will allow any remaining issues to be promptly addressed in Evidentiary Hearings.

COMMENTS ON AIR QUALITY

The air quality section of the PSA discusses three issues that Staff recommends be resolved prior to the issuance of the FDOC: (1) auxiliary boiler Best Available Control Technology (BACT), (2) proposed federal CO_2 New Source Performance Standard (NSPS) for combustion turbines, and (3) the MW rating of the new equipment associated with the SCAQMD Rule 1304 boiler replacement emission offset exemption. These three issues are discussed below. Also discussed below are comments on the revised/new air quality conditions of certification in the PSA.

Auxiliary Boiler BACT – In the PSA,[1] Staff discusses the difference between the auxiliary boiler NOx BACT level of 5 ppm listed in the PDOC and the Project Owner's requested BACT level of 9 ppm. The Staff recommends that this issue be resolved prior to the issuance of the FDOC. Due to a final BACT determination contained in April 2, 2014 letter from the SCAQMD and after obtaining additional information from the auxiliary boiler vendor, the Project Owner has determined that with the installation of a Selective Catalytic Reduction (SCR) system the proposed auxiliary boiler will be able to comply with a NOx BACT level of 5 ppm. The details regarding the boiler SCR system and associated proposed permit conditions for the FDOC are discussed in the enclosed letter recently submitted to the SCAQMD (see Attachment AQ-1).

Proposed CO_2 NSPS for Combustion Turbines – In the PSA,[2] Staff discusses the possible need for a condition of certification limiting the operation of the proposed Trent 60 gas turbines (Units 11 and 12) to ensure the units are exempt from the proposed CO_2 NSPS for combustion turbines. The SCAQMD was also considering including a condition in the FDOC that would limit the operation of Units 11 and 12 so that the units were exempt from the proposed CO_2 NSPS. This issue is discussed in the enclosed letter to the SCAQMD (see Attachment AQ-1), and the Project Owner believes that because the new NSPS is not yet finalized/adopted it would be premature at this point for the SCAQMD to develop a permit condition based on the draft language in this proposed NSPS. As an alternative, the Project Owner requests that the SCAQMD include a more generic permit condition in the FDOC regarding the proposed NSPS that requires a submittal by El Segundo Power, LLC (i.e., the Title V permit owner) following the finalization of the regulation. The language for this proposed permit condition is included in the enclosed letter to the SCAQMD.

MW Rating of New Equipment – In the PSA,[3] Staff discusses a small difference between the gross MW rating of the proposed new Units 9-12 (448.8 MW), compared to the 447 MW shown in the PDOC for the shutdown of the existing boilers at the El Segundo Power Facility (112 MW carry over from shutdown of existing Unit 3 plus 335 MW for shutdown of existing Unit 4). This issue is associated with the SCAQMD Rule 1304.a.2 boiler replacement emission offset exemption that is part of the mitigation package for the ESPFM. The enclosed letter to the SCAQMD (Attachment AQ-1) discusses this issue and requests that the FDOC include a permit condition limiting the total gross MW output of the entire facility (Units 5-12) to 1,020 MW (175 MW per unit for shutdown of existing Units 1 and 2, and 335 MW per unit for shutdown of existing Units 3 and 4). Limiting the total MW output of the entire facility to the same MW level as the retired boilers is consistent with the intent of the Rule 1304.a.2 boiler replacement offset exemption.

[1] PSA, pages 4.1-18, 4.1-31, 4.1-34, 4.1-52, and 4.1-100.
[2] PSA, pages 4.1-1, 4.1-109, 4.1-117, 4.1-121, and 4.1-122.
[3] PSA, pages 4.1-32 and 4.1-51

Comments on PSA COCs AQ-37 to AQ-82 – The PSA includes proposed revised/new air quality COCs for the ESPFM (AQ-37 to AQ-82). Several of these COCs are based on the draft permit conditions contained in the PDOC. In the PSA (Air Quality Table 21), Staff summarizes the proposed revised/new air quality COCs and identifies which PDOC permit condition is the basis for each revised/new COC. In a 01/27/14 letter to the SCAQMD (see Attachment AQ-2), the Project Owner provided requested changes to a number of the draft permit conditions in the PDOC. By reference to this letter, we are requesting that these same changes be made to the relevant revised/new PSA air quality COCs.

Other Comments on AQ COCs.

Project Owner recommends deletion of AQ-SC6 because that condition (barge delivery) is now obsolete and no longer appropriate or applicable.

Project Owner recommends the removal in AQ-53 of the reference to "CEMS", because for pollutants such as VOC, SOx, PM10, the compliance monitoring will be done using methods other than the CEMS.

COMMENTS ON BIOLOGICAL RESOURCES

Several entirely new Biological COCs were proposed for ESEC in the PSA in response to the PTA. As a result, Project Owner is reviewing these COCs for the first time, rather than as assessing COCs that were already established for ESEC. Project Owner proposes that the following revisions be made to COCs BIO-9, -10, -16 and -17 as they were presented in the PSA, to ensure that they are compatible with the existing facility and its past COCs, and also to reflect actual conditions at the site. Project Owner proposes important changes to BIO-9, -10, and -16 as proposed by Staff and is opposed to BIO-17 in its entirety.

BIOLOGICAL RESOURCES MITIGATION IMPLEMENTATION AND MONITORING PLAN (BRMIMP)

BIO-9 Project Owner shall submit to the CPM for review and approval, and CDFW and USFWS for review and comment, a copy of the final Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and, once approved, shall implement the measures identified in the plan. The BRMIMP shall apply to beach delivery only. The BRMIMP shall apply to construction only.

The BRMIMP shall include:

1. [No Change.]
2. [No Change.]
3. [No Change.]
4. [No Change.]
5. [No Change.]

6. Detailed descriptions of all measures that will be implemented to avoid and/or minimize impacts to sensitive species and reduce habitat disturbance, including disturbances to nesting birds;

7. [No Change.]

8. [No Change.]

~~9. Performance standards to be used to help decide if/when proposed mitigation and conditions is are or is are not successful;~~

~~10. All performance standards and remedial measures to be implemented if performance standards are not met;~~

11. [No Change.]

12. [No Change.]

13. [No Change.]

14. [No Change.]

15. Vegetation restoration ~~that provides for planting seacliff buckwheat (*Eriogonum parviflorum*), eradication of ice plant (*Caprobrotus chilensis*), and~~ is coordinated with Visual Resources landscaping requirements.

16. Aerial photographs~~, at an approved scale,~~ of all areas to be disturbed during Project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of Project construction.

17. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the Project site~~, or~~ during Project surveys, to the California Natural Diversity Database (CNDDB) per CDFW requirements.

Verification: [No Change.]

WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

BIO-10 The Project owner shall develop and implement a CPM approved Worker Environmental Awareness Program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the Project site or related facilities during demolition and construction~~, and operation,~~ are informed about sensitive biological resources associated with the Project. The training may be presented on electronic media in the form of a video recording.

[No change to the remainder of this COC.]

GENERAL IMPACT AVOIDANCE AND MINIMIZATION MEASURES

BIO-16 The Project owner shall implement the following measures during site mobilization, construction, operation, and closure to manage their Project site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. ~~At the end of each work day, the Designated Biologist, Biological Monitor, and/or site personnel shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site personnel are inspecting trenches, bores, and other excavations and wildlife is trapped, they will immediately notify the Designated Biologist and/or Biological Monitor. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access. Should wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual to a safe location. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.~~

2. [No Change.]

3. [No Change.]

4. [No Change.]

5. Report all inadvertent deaths of special-status species to the appropriate Project representative, including road kill. Species name, physical characteristics of the animal (sex, age class, length, weight), and other pertinent information shall be noted and reported in the monthly compliance reports. For special-status species, the Designated Biologist or Biological Monitor shall contact CDFW and USFWS within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. Injured animals shall be reported to CDFW and/or USFWS and the CPM, and the Project owner shall follow instructions that are provided by CDFW or USFWS. During construction, injured or dead ~~animals~~ special-status species detected by personnel in the Project area shall be reported immediately to a Biological Monitor or Designated Biologist, who shall remove the carcass or injured animal promptly. ~~During operations, the Project Environmental Compliance Monitor shall be notified.~~

6. [No Change.]

7. [No Change.]

8. [No Change.]

9. [No Change.]

10. The Project owner shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds:

a. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations. Invasive non-native species shall not be used in landscaping plans and erosion control. Monitor and rapidly implement control measures during construction, to ensure early detection and eradication of weed invasions.

11. During construction ~~and operation~~, the Project owner shall conduct pesticide management in accordance with standard BMPs. The BMPs shall include non-point source pollution control measures. The Project owner shall use a licensed herbicide applicator and obtain recommendations for herbicide use from a licensed Pest Control Advisor. Herbicide applications must follow EPA label instructions. Minimize use of rodenticides and herbicides in the Project area and prohibit the use of chemicals and pesticides known to cause harm to non-target plants and wildlife. The Project owner shall only use pesticides for which a "no effect" determination has been issued by the EPA's Endangered Species Protection Program for any species likely to occur within the Project area or adjacent wetlands. If rodent control must be conducted, zinc phosphide or an equivalent product shall be used.

Verification: [No Change.]

~~PRE-CONSTRUCTION NEST SURVEYS AND IMPACT AVOIDANCE~~ AND MINIMIZATION MEASURES FOR BREEDING BIRDS

~~BIO-17 Pre-construction nest surveys shall be conducted if construction activities will occur from February 1 through August 31. The Designated Biologist or Biological Monitor shall perform surveys in accordance with the following guidelines:~~

~~**1.** Surveys shall cover all potential nesting habitat and substrate within and directly around the perimeter of the Project site and areas surrounding the Project site that are exposed to construction and demolition noise levels above ambient or 60 dBA in areas where ambient levels are below 60 dBA.~~

~~**2.** At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. Pre-construction surveys shall be conducted no more than 14 days prior to initiation of construction activity. One survey needs to be conducted within the 3-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed three weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.~~

~~**3.** If active nests are detected during the survey, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. The size of each buffer zone shall be determined by the Designated Biologist in consultation with the CPM (in coordination with CDFW and USFWS). Nest locations shall be mapped using GPS.~~

~~**4.** If active nests are detected during the survey, the Designated Biologist or Biological Monitor shall monitor all nests with buffers at least once per week, to~~

~~determine whether birds are being disturbed. If signs of disturbance or distress are observed, the Designated Biologist or Biological Monitor shall immediately implement adaptive measures to reduce disturbance. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity.~~

~~5.~~ ~~If active nests are detected during the survey, the Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed or the nest is no longer active. Activities that might, in the opinion of the Designated Biologist, disturb nesting activities (e.g., exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made.~~

~~a.~~ ~~Sound levels above ambient levels or 60 dBA (Lmax) in areas where pre-construction noise levels are below 60 dBA are prohibited within the buffer zone, unless otherwise agreed to by the CPM in consultation with USFWS and CDFW.~~

~~Verification: Prior to the start of any pre-construction site mobilization,, the Project owner shall provide the CPM a letter-report describing the findings of the preconstruction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the proposed no disturbance buffer zone around the nest. Additionally, a monitoring plan shall be submitted that describes the Project owner's proposal for documenting that the breeding bird(s) identified were not impacted, consistent with (4) and (5), above; this shall include reporting Leq and Lmax noise levels in the vicinity of the nest if it is in an area expected to exceed ambient levels or 60 dBA (Lmax) in areas where pre-construction noise levels are below 60 dBA. The survey report and monitoring plan shall be submitted to the CPM for review and approval. Additional copies shall be provided to the CDFW and USFWS for review and comment. Approval of the plan is required before construction may commence. All impact avoidance and minimization measures related to nesting birds shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist.~~

COMMENTS ON CULTURAL RESOURCES

The Project site is highly disturbed from decades of development and operations. No historical resources of significance have been identified within or in proximity to the Project site. In addition, cultural resources monitoring previously occurred at the site over a 34 month period and failed to yield historical resources of significance. While Staff has noted in the PSA that a Pepsi bottle, two soda bottles, and a glass ink bottle were observed during the previous monitoring, these items clearly fall under a class of artifacts regularly given "prescriptive" treatment and do not constitute "historical resources" for the purposes of CEQA.

Staff's proposed CUL-6 condition would require full time monitoring from the start of construction. The Project Owner believes this Condition is simply not commensurate with the data and findings and such a Condition would be unnecessarily onerous and burdensome. The Project Owner therefore proposes to replace CUL-6 with a condition that properly recognizes

both the highly disturbed nature of the site and the lack of documentation for any historical resources from almost 3 years of previous full-time construction monitoring within the site. Project Owner's proposed CUL-6 is taken from a recent licensing case with comparable cultural sensitivities to El Segundo..

CUL-6 At the direction of the CPM, the Project owner shall ensure that the CRS, alternate CRS, or CRMs monitor full time all ground disturbances in the area where a CRHR-eligible (as determined by the CPM) cultural resources discovery has been made. The level, duration, and spatial extent of monitoring shall be determined by the CPM. In the event that the CRS believes that a current level of monitoring is not appropriate, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.

Full-time archaeological monitoring for the Project, if deemed necessary, shall be the archaeological monitoring of all earth-moving activities in the areas specified in the previous paragraph, for as long as the CPM requires. Where excavation equipment is actively removing dirt and hauling the excavated material to a location farther than fifty feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the disposal of the excavated soil. For excavation areas where the excavated soil is disposed of no farther than fifty feet from the location of active excavation, one monitor is sufficient to observe both the excavation and soil disposal.

An effort shall be made to obtain a Native American representative to monitor ground disturbance in areas where Native American artifacts may be discovered. Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the Project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow ground disturbance to proceed without a Native American monitor.

The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered during archaeological monitoring.

If monitoring should be needed, as determined by the CPM, CRMs shall keep a daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the Conditions and/or applicable LORS on forms provided by the CPM. Copies of the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended.

The CRS or alternate CRS shall report daily to the CPM on the status of the Project's cultural resources-related activities, unless reducing or ending daily reporting is requested by the CRS and approved by the CPM.

The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resource monitoring and mitigation activities with Energy Commission technical staff.

Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these Conditions.

Upon becoming aware of any incidents of non-compliance with the Conditions and/or applicable LORS, the CRS and/or the Project owner shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.

2. Monthly, while monitoring is on-going, the Project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP.

3. At least 24 hours prior to implementing a proposed change in monitoring level, the Project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level.

4. No later than 30 days following the discovery of any Native American cultural materials, the Project owner shall submit to the CPM copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the Project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.

5. Within 15 days of receiving them, the Project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the Project owner's transmittals of information.

COMMENTS ON HAZARDOUS MATERIALS MANAGEMENT

The PSA contains a new COC HAZ-5, which implements the current state of security requirements for power plants. There are a few aspects of HAZ-5, however, that are problematic. They are discussed below.

Generally, HAZ-5 provides several references to what is currently a legal requirement or standard and makes them an exact requirement of the Security Plan required under HAZ-5. This is problematic because if a security law or regulation changes (as it is likely to do over the life of the plant) then the Security Plan should be changed. Project Owner therefore recommends that specific references to existing laws be modified to be either generic or to contain a phrase such as "or subsequent applicable requirements". The entire COC could have

a paragraph that notes that subsequent changes to the applicable security requirements under the law shall take precedence over requirements specified in the condition and that Project Owner shall submit a revised Security Plan for review and approval in accordance with the Condition should such circumstances arise.

In Paragraph 1 of HAZ-5, the Security Plan would be required to specify that a fence at least 8 feet high must be provided with barbed wire. Project Owner has two concerns with Paragraph 1. First, placing a requirement in a COC that a security plan be submitted after approval by the CEC of a project (here a petition to amend an AFC) specifying the visual character and height of a perimeter fence or wall does not mean that the Project could properly be allowed to contain such a fence or wall. The visual character of perimeter areas is subject to environmental analysis in other areas and such dimensions and visual characteristics, at a minimum would need to be analyzed under Land Use and Visual Resources. Thus the correct approach would be to ensure the Project has a specific physical height and access characteristic as approved. Second, Project Owner is not certain that the existing facility contains fences or walls at least 8 feet high topped by barbed wire or the equivalent. Further, Project Owner did not include in the PTA (nor has the Project ever included) proposing changes to the perimeter and fencing except along 45th Street and along the Bike Path where other specific requirements are in place under Visual and Land Use COCs. Project Owner believes that all fences or walls are at least 6 feet in height and topped with barbed wire or equivalent. For these reasons, Project Owner recommends that the height specified in Paragraph 1 of HAZ-5 be “at least 6 feet”.

HAZ-5 also requires, in Paragraph 9, that CCTV of site security cameras be viewable in the security station at the plant gate. ESEC, however, currently uses the Control Room for Units 3, 4, 5, 6, 7 and 8 as the sole monitoring location for security. That set up is intentional. When the new units are constructed, the new control room will continue that arrangement. Project Owner does not believe it is a requirement under federal or state law that an entrance gate guard shack has security camera closed circuit televisions, and suggests deleting from Paragraph 9 the phrase “and the security station located at the main entrance.”

Paragraph 10 in HAZ-5 is inconsistent and ambiguous as to exactly what it requires. It specifies three security measures labeled as “A”, “B” and “C”. However, Paragraph 10 lists them with an “either” as the beginning, an “and” after A, and an “or” after B. It thus not clear whether Staff intended the Project Owner to implement all three, or make a choice between some or all of the three options. Further, the phrase “perimeter breach detectors” has never been used in a Project document and is not defined in the PSA. It should be defined. Finally, Paragraphs 9 and 10 do not appear to be consistent, since Paragraph 10 would require one hundred percent (100%) perimeter cameras as one option, whereas Paragraph 9 requires that only certain areas have video monitoring.

COMMENTS ON NOISE AND VIBRATION

At the Staff workshop on the PSA, Staff, the Project Owner and Michelle Murphy discussed the need to adjust COC NOISE-8 to reflect the changed conditions at the Project site since the original NOISE-8 was agreed upon by all parties. Namely, the fuel oil storage tanks (FOSTs) that used to dominate the southern portion of the Project site have been removed, as specified in the Final Decision on ESEC. As a result, NOISE-8’s specified use of the FOSTs can no longer be followed. In the original NOISE-8 the Project was broken down into four phases:

Phase I: Tank Preparation Period

Phase II: Demolition Period (Demolition of Units 1 and 2)

Phase III: Construction Period (meaning construction of Units 5, 6, 7 and 8)

Phase IV: Operations Period (meaning the operation of Units 5, 6, 7 and 8).

Project Owner suggests adding a new Phase V that would apply to the construction of Units 9, 10, 11 and 12. Further, Project Owner proposes that a new figure be provided to replace the figure in NOISE-8 that showed the FOSTs. The proposed changes to NOISE-8 are provided below. Project Owner will provide a new proposed figure under separate cover once it is completed.

NOISE-8: Construction/Demolition Schedule: Heavy equipment operation and noisy construction or demolition work shall be restricted beginning at site mobilization as described below.

No pure tones are allowed outside of the hours of 7:30 A.M. to 6:00 P.M. Monday-Friday, and 9:00 A.M. to 6:00 P.M. Saturday. Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

Noise levels at any residential property line due to tank farm construction or demolition shall be limited to the average daytime hourly ambient L50 value plus 5 dBA, or 65 dBA L50, whichever is lower for continuous noise. For intermittent noise (up to 30 minutes in one hour), the maximum noise levels shall be ambient L50 plus 10 dBA). Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

The use of the tank farm area is divided into ~~four~~ five phases. For each phase the following restrictions shall be observed. ~~Construction activity outside the hours described will not be allowed in the area south of the southern tank, which shall be termed the nighttime exclusion area, shown below:~~

[No Changes to Phase I through IV]

[Delete old figure provided in NOISE-8 and insert new Figure NOISE 8-2]

Phase V: Construction of Units 9, 10, 11 and 12 Period: Construction activities in the area of the former tank farm will be restricted to 7:30 AM to 6:00 PM. All activities in southerly end of the former tank farm area (shaded area shown in Figure NOISE 8-2) shall be further limited as follows. During daytime only, heavy trucks may be used in the area for maintenance related activities. During the hours 5:00 PM to 9:00 AM, the shaded area may be accessed by passenger vehicles or pedestrians only. Outside of the shaded area, contractor and staff passenger vehicles and trucks may access the former tank farm area at any time.

COMMENTS ON VISUAL RESOURCES

Staff proposed modifications to a few of the Visual Resources COCs approved in the 2010 Commission Decision. Project Owner agrees that the Commission should adopt the COCs proposed by Staff in the PSA, but subject to Property Owner's modifications below. The COCs to which Project Owner does not propose changes are not reproduced below. Project Owner proposes changes to VIS-2 and VIS-10.

VIS-2 **Perimeter screening and on-site landscaping.** The Project owner shall ~~prepare~~ continue with implementation of the ~~approved~~ perimeter screening and on-site landscape plan that was developed and approved in compliance with the Conditions of Certification applied to the 2010 Decision as modified.

~~The screening shall, at a minimum, utilize landscape opportunities on all four boundaries of the Project site. Landscape screening shall include: continuous tree canopies on the eastern roadside perimeter to enhance visual unity of the Vista del Mar road corridor, compatibility of the proposed Project with its coastal setting, and at least partial long-term screening of upper portions of the HRSGs; shrub plantings along Vista del Mar to screen views of the structures, while preserving perpendicular view corridors to the Bay; plantings along 45th Street to provide long-term screening of the tank farm site; and tree planting on the western site perimeter to screen upper portions of power plant units from the bike path. Landscape screening shall also include planting on the path (west) side of all new concrete walls constructed along the existing bike path. The plan shall comply with City of El Segundo Zoning codes (Title 15, Chapter 2, Sec. 15-2-14) pertaining to on-site landscaping.~~

~~Final plant selection shall be made in consultation with the Compliance Project Manager (CPM), Coastal Commission staff, and the Cities of Manhattan Beach and El Segundo. Suitable irrigation shall be installed to ensure survival and desired rate of growth. The landscape screening and irrigation system shall be monitored for a period of five years to ensure survival. During this period all dead plant material shall be replaced.~~

~~To achieve year-round screening, evergreen species shall be used. Spacing of trees shall be sufficiently dense to ensure substantial screening by the tree canopy at maturity.~~

~~Prior to start of construction, the Project owner shall submit a landscape plan to the Coastal Commission and the Cities of Manhattan Beach and El Segundo for review and comment, and to the CPM for review and approval. The plan shall include, but not be limited to:~~

~~1) A detailed landscape, grading, and irrigation plan, at a reasonable scale, which includes a list of proposed tree and shrub species and installation sizes, and a discussion of both the suitability of the plants for the site conditions and mitigation objectives, and conformance with the specific provisions of the Coastal Commission decision, including 1b and 2b specifying preference for native, non-invasive, and drought tolerant species. A list of potential tree species that would be viable in this location shall be prepared by a qualified professional landscape architect familiar with local growing conditions, with the objective of providing the widest possible range of~~

~~species from which to choose.~~

~~2) A demonstration of how the screening conditions shall be met, including:~~

~~- evidence provided by a qualified landscape architect that the specified species are both viable and available;~~

~~-graphic documentation on the plan of Bay view corridors which would exist from Vista del Mar after Project construction;~~

~~- a description of tall and short shrub planting zones along Vista del Mar, such that screening of the existing and proposed power plants is maximized, while the aforementioned Bay view corridors are retained.~~

~~3) Elevation views or visual simulations of the landscape screening at maturity, in order to show the extent of screening that the landscaping is expected to achieve from the west side of the Project, from 45th Street and from Vista del Mar.~~

~~4) A detailed schedule for completion of the installation.~~

~~5) Maintenance procedures, including any needed irrigation and a plan for routine and regular debris removal for the life of the Project.~~

~~6) A procedure for monitoring and replacement of all unsuccessful plantings for the life of the Project, including monitoring and replacement of pre¬existing perimeter landscape plantings, such as those along the Vista del Mar frontage.~~

~~7)~~ Prior to the start of construction of Units 9, 10, 11 and 12, ~~The~~ Project owner shall consult with the CPM to modify the perimeter landscape plan as needed to replace unsuccessful plantings, adjust the plantings on the top of the berm to preserve the views of nearby residents toward the ocean and the Santa Monica Mountains, upgrade the condition and appearance of existing chain link fencing along the Braude bike path, and ensure survival of and effective screening by tree and other landscape plantings.

The Project owner shall not implement the modified plan until Project Owner receives written approval of the plan from the CPM.

Verification: At least 120 days prior to the start of construction, Project Owner shall submit the modified perimeter screening and onsite landscape plan to the Coastal Commission and the Cities of Manhattan Beach and El Segundo for comment, and the CPM for review and approval. If the CPM notifies the Project Owner that revisions of the submittal are needed before the CPM will approve the submittal, the Project Owner shall prepare and submit to the Cities and CPM a revised submittal.

The Project Owner shall implement the revisions to the landscape plan prior to start of commercial operation.

The Project Owner shall notify the CPM within seven days after completing installation of the revisions to the landscape plan that the planting and irrigation system are ready for inspection.

The Project owner shall report landscape maintenance activities, including replacement of dead vegetation, for the previous year of operation in the Annual Compliance Report.

VIS-10: Screening of On- and Off-Site Construction and Laydown. Prior to the start of commercial operation, the Project owner shall design and install continuous new opaque perimeter fencing around all proposed construction and laydown sites within the coastal zone, including the Units 3 and 4 portion of the ESGS site facing the beach, and the former tank farm site facing the beach or 45thStreet. Fencing shall be of sufficient height and extent to minimize the visibility of stored equipment and materials as seen by off-site public viewers. Opaque fencing material shall be maintained and, where damaged or worn, replaced in a timely manner.

Fencing plans shall be prepared for all construction, staging and laydown sites in the coastal zone where construction or staging could be visible from public beaches or roadways. In determining the need for the construction fencing, account should be taken of the screening effects of berms and landscaping installed in compliance with the Conditions of Certification applied to the 2010 Decision as modified.

Prior to start of demolition or laydown activities, Project owner shall submit a temporary perimeter fencing plan to the CPM for review and approval. The plan shall provide:

a) A detailed fencing plan at a reasonable scale showing proposed fence locations, fencing types and heights, and fencing details.

b) A detailed schedule for completion of the installation.

c) A procedure for monitoring and replacement of damaged or worn fencing.

Verification: At least 60 days prior to start of ground disturbance, the Project owner shall submit the temporary perimeter fencing plan to the CPM for review and approval. If the CPM notifies the Project owner that revisions of the submittal are needed before the CPM will approve the submittal, the Project owner shall prepare and submit to the CPM a revised plan.

The Project owner shall notify the CPM within seven days after completing installation of the fencing plan that the fencing is ready for inspection.

The Project owner shall report fencing maintenance activities, including replacement of damaged or worn fencing, for the previous month of construction in the Monthly Compliance Report.

COMMENTS ON COMPLIANCE

In the PSA, Staff has proposed entirely new Compliance conditions that ostensibly would apply to the entire ESEC facility despite the fact that the PTA proposes only an addition of new units and some other important changes to the facility. Further, the proposed new Compliance conditions represent significant encumbrance and burden upon the Project without any underlying authority of the CEC to so burden a project. COM-15 and COM-16 would combine to require significant capital be tied up for an indefinite period of time, for the life the Project, in order to set aside funds for some unclear and long-in-the-future decommissioning process that

ESEC could go through. The concerns and objections that the Project Owner has with this imposition on ESEC are significant.

Fundamentally, Project Owner has already begun adhering to the existing decommissioning procedures implemented in ESEC and almost every other CEC project, and is not prepared to burden ratepayers and the Project, retroactively in terms in Units 5, 6, 7 and 8, with a significant capital outlay prior to construction for a decommissioning bond that would rest unused for decades. Further, Project Owner does not agree at this time with a premise that decommissioning costs can be predicted so far in advance, nor so precisely. Additionally, Project Owner does not understand the need for, legally or logically, for such a significant departure from the CEC's past practice regarding decommissioning. Project Owner believes that such significant changes in requirements are better suited to rulemaking, where all interested parties can participate in a meaningful dialogue regarding a new approach to decommissioning under the Warren Alquist Act.

For these reasons and others, Project Owner must object to the new proposed COCs COM-15 and COM-16.

Project Owner also does not understand the basis for, nor the exact scope of, new proposed COC COM-10. COM-10 would require CEC approval for ownership changes. Project Owner is concerned that this condition is not clear as to what constitutes a change in ownership of a project. Further, Project Owner does not understand how or why a COC would be needed to specify an existing legal obligation under the Warren Alquist Act and its duly enacted regulations, nor how a COC could modify such obligations. For these reasons, Project Owner must object to COC-10.

CONCLUSION

Project Owner wishes to emphasize the respect that it has for the work of Staff. To the extent Project Owner objects to any COCs proposed by Staff in this PSA to the PTA or suggests changes, it does so only out of necessity, and intends for this objection to be professional and respectful. Project Owner welcomes this opportunity to collaborate with Staff and the CEC to resolve PTA issues, and looks forward to reading the Final Staff Assessment.

Locke Lord LLP

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

JAM: awph

Enclosures (Attachments AQ-1 and AQ-2)

ATTACHMENT AQ-1

April 30, 2014 LETTER TO THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

El Segundo Power, LLC.
301 Vista Del Mar Boulevard
El Segundo, CA 90245
Phone: 310.615.6028
Fax: 310.615.6060

April 30, 2014

Kenneth Coats
AQ Engineer II
South Coast AQMD
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Subject: **El Segundo Power Facility Modification Project – Response to April 2, 2014 SCAQMD Letter (Auxiliary Boiler BACT Requirements); Response to CO2 NSPS and Rule 1304 Comments for FDOC Consideration**
El Segundo Power, LLC (Facility ID 115663)
301 Vista Del Mar Blvd, El Segundo CA 90245

Dear Mr. Coats:

On behalf of El Segundo Power, LLC ("El Segundo Power"), NRG Energy is providing the enclosed permit application package for a Selective Catalytic Reduction (SCR) system for the new auxiliary boiler proposed for the El Segundo Power Facility Modification ("ESPFM") Project; the application and information below are in response to comments received from SCAQMD in their April 2, 2014 letter (Attachment 1). In addition, El Segundo Power is proposing two new permit conditions for consideration in the future ESPFM Final Determination of Compliance ("FDOC") to resolve comments received from the SCAQMD regarding the proposed federal CO_2 New Source Performance Standard for gas turbines and the MW output for the new units at the El Segundo Power Facility.

Auxiliary Boiler BACT

The enclosed permit application package (see Attachment 2) was prepared in response to the SCAQMD's April 2, 2014 letter to El Segundo Power concluding that Best Available Control Technology (BACT) for the proposed auxiliary boiler are NOx and CO limits of 5 ppm and 50 ppm @ 3% O_2, respectively. To achieve the 5 ppm NOx limit, it will be necessary to equip the proposed auxiliary boiler with an SCR system. As discussed in the enclosed boiler vendor letter (see Attachment 3), with the installation of the SCR system the auxiliary boiler will comply with the 5 ppm NOx BACT limit throughout the boiler operating range (10% to 100% load). In addition, the auxiliary boiler will comply with the 50 ppm CO BACT limit when the boiler operates between 20% to 100% load; however, below an operating level of 20% (10% to 20%), the boiler will comply with a CO limit of 100 ppm. Therefore, it will be necessary for the ESPFM FDOC to have a two-tier CO ppm limit depending on the boiler operating load. Low-load operation (below 20%) is uncommon for boilers, but is essential in this application to minimize the unnecessary consumption of fuel simply to meet a minimum load requirement.

The enclosed boiler vendor letter also discusses the minimum SCR operating temperature of 500 °F for the SCR to achieve the necessary control level to comply with the 5 ppm NOx limit. Therefore, the FDOC will need to include an exemption from the 5 ppm NOx limit during boiler operations where the SCR is below the proper operating temperature. While it may be possible to estimate a time duration for boiler operation when the SCR temperature is below the required level, and, as shown in the enclosed email from the boiler vendor (also enclosed in Attachment 3), these estimates are 120 minutes following a startup and 60 minutes preceding a shutdown, we believe it more technically defensible to base the NOx exemption on the clear engineering parameter (temperature) rather than on estimated time durations. An incorrect time estimate will only lead to excessive (but compliant) fuel use and emissions if boiler load is increased simply to avoid violating duration limit. We request that this temperature exemption be included in the FDOC for the auxiliary boiler.

Finally, the enclosed boiler vendor letter (along with associated email) also discuss the need for a commissioning period to allow for the boiler operation needed to properly adjust/test the SCR system. Per the information from the boiler vendor, we request a commissioning exemption of 80 operating hours be included in the FDOC for the auxiliary boiler.

The following are the proposed new SCAQMD permit conditions for the auxiliary boiler:

A195.17 The 5 PPMV NOx emission limit is averaged over 1 hour, dry basis at 3 percent oxygen. This limit shall not apply to boiler commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 80 operating hours. Following the commissioning period, the limit shall apply at all times when the SCR catalyst inlet temperature is in excess of 500°F.

[Devices subject to this condition: D112]

A195.18 The 50 PPMV CO emission limit is averaged over 1 hour, dry basis at 3 percent oxygen. This limit shall not apply to boiler commissioning, start-up, and shutdown periods, and when the boiler load is less than or equal 20%. The commissioning period shall not exceed 80 operating hours. Following the commissioning period, a start-up shall not exceed 120 minutes, and a shutdown shall not exceed 60 minutes.

[Devices subject to this condition: D112]

A195.19 The 100 PPMV CO emission limit is averaged over 1 hour, dry basis at 3 percent oxygen. This limit shall apply when the boiler load is greater than 10% and less than or equal to 20%. This limit shall not apply to boiler commissioning, start-up, and shutdown periods. The commissioning period shall not exceed 80 operating hours. Following the commissioning period, a start-up shall not exceed 120 minutes, and a shutdown shall not exceed 60 minutes.

[Devices subject to this condition: D112]

In addition to the referenced attachments, enclosed is a check payable to the SCAQMD for $5,263.29 to cover the filing fee for the auxiliary boiler SCR permit application. This fee includes the filing fee estimate of $3,508.86 provided recently by the SCAQMD plus the additional 50% for expedited review.

CO_2 New Source Performance Standard

On January 8, 2014, the U.S. Environmental Protection Agency (EPA) proposed a revised draft new source performance standard for emissions of carbon dioxide (CO_2) for affected fossil fuel-fired electric utility generating units. The EPA revised the draft CO_2 NSPS due to a large number of public comments received on the previous draft version of the regulation. According to the EPA website for this regulation, the public comment period for the revised draft NSPS has been extended to a new deadline of May 9, 2014.[1] Please note that EPA is considering two options for codifying the new CO_2 NSPS requirements. Under the first option, EPA is proposing to codify the NSPS within the existing 40 CFR 60 subparts; applicable CO_2 standards for stationary combustion turbines would be included in Subpart KKKK. Under the second option, the EPA is co-proposing a new Subpart TTTT (as in the original proposal for this rulemaking) to include all CO_2 standards for covered sources (including stationary combustion turbines).

It is our understanding that the SCAQMD is considering including a new permit condition in the FDOC that would limit the annual operation of Units 11 and 12 (proposed new Trent units) to exempt the units from the *proposed* CO_2 NSPS. The operating limit in this permit condition would be based on the current exemption language in the *proposed* NSPS.[2,3] While Units 11 and 12 may ultimately be exempt from the proposed new CO_2 NSPS due to limited annual operation, because the new NSPS is not yet finalized/adopted it would be premature at this point for the SCAQMD to develop a permit condition based on the draft language in this proposed NSPS. Doing so will likely result in a permit limit that is inconsistent with the final regulations. As an alternative, we request that the SCAQMD include a more generic permit condition regarding the proposed NSPS that requires a submittal by El Segundo Power following the finalization of the regulation. The following is the requested new permit condition that covers all of the combustion turbines (existing and proposed) at the facility:

If the final, adopted version of 40 CFR 60 Subpart TTTT, or the final, amended version of 40 CFR 60 Subpart KKKK, applies to GHG emissions from Units 5-12, within 90 days of adoption, the project owner shall submit to the SCAQMD a demonstration that the project will be in compliance with the requirements of that Subpart or, in the alternative, shall submit a permit application requesting new or modified permit conditions that will ensure compliance with those requirements.

MW Limit for New Units

It is also our understanding that the SCAQMD is considering including a new permit condition in the FDOC that would ensure that the MW rating of the El Segundo Power steam boiler units shutdown/retired for the proposed project matches the MW rating of the proposed new units. This issue is associated with the Rule 1304.a.2 boiler replacement emission offset exemption that is part of mitigation package for this project. One of the options being considered by the

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[1] *http://www2.epa.gov/carbon-pollution-standards/2013-proposed-carbon-pollution-standard-new-power-plants.*

[2] Subpart TTTT, 60.5509.a.2) A stationary combustion turbine that has a design heat input to the turbine engine greater than 73 MW (250 MMBtu/h), combusts fossil fuel for more than 10.0 percent of the average annual heat input during a 3 year rolling average basis, combusts over 90% natural gas on a heat input basis on a 3 year rolling average basis, and was constructed for the purpose of supplying, and supplies, one-third or more of its potential electric output and more than 219,000 MWh net-electrical output to a utility distribution system on a 3 year rolling average basis.

[3] The above exemption language is also in the proposed draft Subpart KKKK, 60.4305.c.

SCAQMD is a permit condition that would limit the gross output of the new units (Units 9-12) to 447 MW (112 MW carry over from shutdown of existing Unit 3 plus 335 MW for shutdown of existing Unit 4). While a permit condition limiting the gross MW output of the new units to 447 MW is reasonable; however, to allow for greater operational flexibility and to be consistent with the language of the Rule, we request the permit condition limit the total gross MW output of the entire facility (Units 5-12) to1020 MW (175 MW per unit for shutdown of existing Units 1 and 2, 335 MW per unit for shutdown of existing Units 3 and 4). Limiting the total MW output of the entire facility to the same MW level as the retired boilers is consistent with the intent of the Rule 1304.a boiler replacement offset exemption: *...The new equipment has a maximum electrical power rating (in megawatts) that does not allow basinwide electricity generating capacity on a per-utility basis to increase.*

If you have any questions or need any additional information, please do not hesitate to contact me at 760-710-2156 (office) or 760-707-6833 (cell).

Sincerely,

George L. Piantka, PE
Director, Environmental Business
NRG Energy, Inc. West Region

Attachments

cc: Ken Riesz, NRG Energy
Tom Andrews, Sierra Research
Robert Mason, CH2M Hill
John McKinsey, Locke Lord

ATTACHMENT 1

SCAQMD April 2, 2014 Comment Letter –
Auxiliary Boiler BACT Requirements

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

April 2, 2014

Mr. George L. Piantka, P.E.
Director, Environmental Business
NRG West
5790 Fleet Street Suite 200
Carlsbad, CA 92008

Subject: El Segundo Power Facility Modification (ESPFM) Project located at 301 Vista Del Mar, El Segundo, CA 90245 (Facility ID No.115663) Auxiliary Boiler BACT Requirements

Dear Mr. Piantka:

The South Coast Air Quality Management District (SCAQMD) staff is currently evaluating the permit applications for the proposed modifications to the El Segundo Power Facility Modification Project (ESPFM). As you are aware, the project will require a source of steam to utilize the rapid start capability of the GE 7FA combined cycle gas turbine. As such the proposed project will include a 36 MMBTU/hr auxiliary boiler which will be fired with pipeline quality natural gas.

Before completion of our evaluation and the Final Determination of Compliance (FDOC), the SCAQMD must determine that the new, proposed auxiliary boiler will comply with the Major Source BACT requirements. The Major Source BACT requirements for natural gas fired watertube boilers is 5 ppmv NOx and 50 ppmv CO, each measured at 3% O2, dry basis. The 5 ppmv NOx determination was based on Rule 1146 BARCT requirements for Group I and II Units which are greater than 20 MMBTU/hr. Furthermore, two similar watertube boilers permitted at LAC/USC Medical Center in August 2012, both of which are in in current operation, are using a low NOx burner and an SCR unit to achieve the Major Source BACT limits of 5 ppmv NOx and 50 ppmv CO.

This information was previously communicated to you in an email and phone call dated January 8, 2014. Therefore, please submit evidence by May 1, 2014 that the proposed auxiliary boiler will comply with the above Major Source BACT limits such that we can finalize the FDOC and permits for the proposed project. If your determination requires installation of additional equipment which requires an Permit to Construct from SCAQMD, please submit the necessary applications by May 1, 2014. Furthermore, any changes to the scope should be conveyed to your CEC contact for their review and evaluation.

If you have any questions or need additional information, please contact Mr. John Yee (jyee@aqmd.gov) at (909) 396-2531 or Mr. Kenneth L. Coats (kcoats@aqmd.gov) at (909) 396-2527.

Sincerely,

Andrew Lee, P.E.
Senior AQ Engineering Manager
Energy/Public Services/Waste Management/Terminals

MN:AYL:CDT:JTY:klc
cc: Mary Dyas, CEC

ATTACHMENT 2

SCAQMD APPLICATION FORMS

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): El Segundo Power, LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115663

3. Owner's Business Name (If different from Business Name of Operator):

Section B - Equipment Location Address

4. Equipment Location Is: (◉) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

301 Vista Del Mar
Street Address
El Segundo , CA 90245
City Zip
George L. Piantka, PE — Director, Env. Business
Contact Name — Title
(760) 710-2156 — Ext. — Fax #
E-Mail: george.piantka@nrgenergy.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

5790 Fleet Street, Suite 200
Address
Carlsbad , CA 92008
City State Zip
George L. Piantka, PE — Director, Env. Business
Contact Name — Title
(760) 710-2156 — Ext. — Fax #
E-Mail: george.piantka@nrgenergy.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (◉) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- (◉) New Construction (Permit to Construct)
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- ( ) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): | 8b. Estimated End Date of Construction (mm/dd/yyyy): | 8c. Estimated Start Date of Operation (mm/dd/yyyy):

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
New SCR unit on new auxiliary boiler

10. For identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process)

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (◉) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (◉) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Electric Power Generation

14. What is your business primary NAICS Code? (North American Industrial Classification System) 221112

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (◉) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (◉) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: George L Piantka for

18. Title of Responsible Official: Plant Manager

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (◉) Yes

20. Print Name: Ken Riesz

21. Date: 4/30/14

22. Do you claim confidentiality of data? (If Yes, see instructions.) (◉) No ( ) Yes

23. Check List: ☒ Authorized Signature/Date ☐ Form 400-CEQA ☒ Supplemental Form(s) (Ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED $	PAYMENT TRACKING #	VALIDATION

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN

South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): El Segundo Power, LLC

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115663

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 301 Vista Del Mar, El Segundo, CA 90245

(•) Fixed Location ( ) Various Locations

Section B - Equipment Description

Selective Catalytic Reduction (SCR)

SCR Catalyst

Manufacturer: Haldor-Topsoe Catalyst Active Material: titanium/vanadium/tungsten

Model Number: DNX929 Type: _____

Size of Each Layer or Module: L: 2 ft. 2 in. W: 4 ft. 6 in. H: 4 ft. 6 in.

No. of Layers or Modules: _____ Total Volume: 28 cu. ft. Total Weight: _____ lbs.

Reducing Agent

( ) Urea ( ) Anhydrous Ammonia (•) Aqueous Ammonia 29.00 % Injection Rate: 5 lb/hr

Reducing Agent Storage*

Diameter: _____ ft. _____ in. Height: _____ ft. _____ in. Capacity: _____ gal

Pressure Setting: _____ psia * A separate permit may be needed for the storage equipment.

Space Velocity

Gas Flow Rate/Catalyst Volume: 14706 per hour

Area Velocity

Gas Flow Rate/Wetted Catalyst Surface Area: _____ ft/hr

Manufacturer's Guarantee

NOx: _____ ppm $\%O_2$: _____ NOx: _____ gm/bhp-hr Ammonia Slip: 10 ppm @ 3.00 $\%O_2$

Catalyst Life

5 years (expected)

Cost

Capital Cost: $500,000.00 Installation Cost: $250,000.00 Catalyst Replacement Cost: $350,000.00

Oxidation Catalyst

Oxidation Catalyst

Manufacturer: _____ Catalyst Active Material: _____

Model Number: _____ Type: _____

Size of Each Layer or Module: L: _____ ft. _____ in. W: _____ ft. _____ in. H: _____ ft. _____ in.

No. of Layers or Modules: _____ Total Volume: _____ cu. ft. Total Weight: _____ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume: _____ per hour

Manufacturer's Guarantee

VOC: _____ ppm VOC: _____ gm/bhp-hr $\%O_2$: _____

CO: _____ ppm CO: _____ gm/bhp-hr $\%O_2$: _____

Catalyst Life

_____ years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (cont.)

Ammonia Catalyst

Ammonia Catalyst

Manufacturer:_____ Catalyst Active Material:_____

Model Number:_____ Type:_____

Size of Each Layer or Module: L:_____ ft._____ in. W:_____ ft._____ in. H:_____ ft._____ in.

No. of Layers or Modules:_____ Total Volume:_____ cu. ft. Total Weight:_____ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume:_____ per hour

Manufacturer's Guarantee

NH_3:_____ ppm $\%O_2$:_____

Catalyst Life

_____ years (expected)

Cost

Capital Cost:_____ Installation Cost:_____ Catalyst Replacement Cost:_____

Section C - Operation Information

Operating Temperature

Minimum Inlet Temperature: 500 °F (from cold start) Maximum Temperature: 750 °F

Warm-up Time:_____ hr._____ min. (maximum)

Operating Schedule

Normal: _____ hours/day _____ days/week _____ weeks/yr

Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info

Signature: George L Piantka Date: 4/30/14 for

Title: Senior Engineer Company Name: Sierra Research, Inc.

Name: Tom Andrews

Phone #: (916) 273-5139 Fax #: (916) 444-8373

Email: tandrews@sierraresearch.com

Contact Info

Name: George L. Piantka, PE

Title: Director, Env. Busines Company Name: NRG Energy

Phone #: (760) 710-2156 Fax #:

Email: george.piantka@nrgenergy.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☐

South Coast Air Quality Management District

Form 400 - XPP

Express Permit Processing Request

Form 400-A, Form 400-CEQA and one or more 400-E-xx form(s) must accompany all submittals.

Mail To:
SCAQMD
P.O Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator To Appear On The Permit): El Segundo Power, LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115663

Section B - Equipment Location Address

3. (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

301 Vista Del Mar
Street Address

El Segundo, CA 90245
City State Zip

George L. Piantka, PE — Director, Env. Busines
Contact Name Title

(760) 710-2156 — — —
Phone # Ext. Fax #

george.piantka@nrgenergy.com
E-Mail

Section C - Permit Mailing Address

4. Permit and Correspondence Information:
☐ Check here if same as equipment location address

5790 Fleet Street, Suite 200
Address

Carlsbad, CA 92008
City State Zip

George L. Piantka, PE — Director, Env. Business
Contact Name Title

(760) 710-2156 — —
Phone # Ext. Fax #

george.piantka@nrgenergy.com
E-Mail

Section D - Authorization/Signature

I understand that the Expedited Permit Processing fees must be submitted at the time of application submittal, and that the application may be subject to additional fees per Rule 301. I understand that requests for Express Permit Processing neither guarantees action by any specific date nor does it guarantee permit approval; that Express Permit Processing is subject to availability of qualified staff; and that once Express Permit Processing has commenced, the expedited fees will not be refunded. I hereby certify that all information contained herein and information submitted with the application are true and correct.

5. Signature of Responsible Official: George L Piantka Jr

6. Title of Responsible Official: Plant Manager

7. Print Name of Responsible Official: Ken Riesz

8. Date: 4/30/14

9. Phone #: (310) 615-6030

10. Fax #: (310) 615-6060

AQMD USE ONLY	APPLICATION TRACKING #	TYPE B C	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE: $		VALIDATION
ENG. DATE A R	ENG. DATE A R	CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

ATTACHMENT 3

AUXILIARY BOILER VENDOR LETTER

6940 Cornhusker Highway
Lincoln NE 68507
402 434 2000
cleaverbrooks.com

April 22, 2014

NRG Energy
Engineering & Construction
1000 Main Street – 2046F
Houston TX 77002

Attention: Ms. Terri Austin, Project Engineer
Subject: Auxiliary Boiler Emissions - NRG's El Segundo Expansion Project

Dear Ms. Austin,

In response to your request, we are pleased to submit the following information:

The Auxiliary Boiler system proposed for your El Segundo Expansion Project (Proposal #04620389) incorporates Cleaver-Brooks' 30,000 lb/hr "D" Type Boiler (Model# NB-100D-40) with a Natcom low-NOx burner system (Model# P-36-G-24-1216) with a maximum design heat release 36.2 MMBtu/hr (HHV) when firing natural gas. The system also includes a Cleaver-Brooks designed SCR system (Model# CBHT-DNX-929) to lower NOx to 5 ppm.

The following emissions rates will apply between 10-100% boiler loads:

NOx:	0.0061 lbs/MMBtu	(5 ppmvd @ 3%-O2)
CO:	0.0370 lbs/MMBtu	(50 ppmvd @ 3%-O2)*
VOC:	0.0040 lbs/MMBtu	
PM2.5:	0.0075 lbs/MMBtu	

* CO emissions may vary at low boiler loads, but not exceed 100 ppm between 10%-20% loads.

Note:

1. The SCR system is designed to reduce stack NOx emissions by 90% based on a minimum catalyst inlet temperature of 500°F with a maximum NH3 slip of 10 ppmvd.
2. The Natcom Low-NOx burner system will not exceed 50 ppm NOx prior to the SCR system.
3. Start-up and Commissioning of the Aux Boiler (typically a 90 day period) will be required to bring the unit into full compliance.

We trust this addresses your request, however please contact our office should you have any further questions or concerns.

Sincerely,

Rick Fiorenza
VP Sales, Burner Applications

cc: Aaron Fink

Tom W. Andrews

From: Rick Fiorenza <RFiorenza@natcom.com>
Sent: Tuesday, April 29, 2014 8:57 AM
To: Tom W. Andrews
Cc: Aaron Fink; Austin, Terri; Jim Roberts
Subject: RE: NRG Energy - El Segundo Expansion Project - Aux Boiler

Tom,

Cleaver-Brooks recommends the following emissions exemptions periods for the subject project:

- 120 minute boiler startup period exemption.
- 60 minute boiler shutdown period exemption.
- 80 operating hour boiler commissioning period exemption.

Regards,

Rick Fiorenza
VP Sales, Burner Applications
Engineered Boiler Systems

CleaverBrooks

Office. 916.316.2542 | Mobile: 916.316.2542 | Fax: 514.326.9347
HTML footer:

ATTACHMENT AQ-2

JANUARY 27, 2014 LETTER TO THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

January 27, 2014

sierra research

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

Ann Arbor, MI
Tel: (734) 761-6666
Fax: (734) 761-6755

Andrew Lee
Engineering and Compliance
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 92865-4182

Subject: Proposed El Segundo Power Facility Modification Project – Comments on PDOC

Dear Mr. Lee:

On behalf of El Segundo Power, LLC (Applicant), we offer comments on the Preliminary Determination of Compliance (PDOC) for the El Segundo Power Facility Modification (ESPFM) Project, dated December 20, 2013. We greatly appreciate the effort that the District staff has expended in evaluating the application and preparing the PDOC and Draft Permit.

The comments are offered in the order in which their subjects occur in the PDOC. Suggested revisions to incorporate the comments are included as an attachment to this letter.

Public Notice

The public notice states that EPA is responsible for issuing the PSD permit for GHGs. However, EPA approved the District's GHG PSD rule into the SIP on January 9, 2013. The District has indicated in other permit reviews that it understands that it has authority for issuance of PSD permits for GHG sources and is therefore required to evaluate projects for compliance with the GHG PSD requirements.[1] In fact, later in the public notice, the District confirms that it reviewed ESPFM for compliance with the GHG PSD Requirements contained in District Rule 1714, and found the project to be compliant.

While we believe that the public notice accurately conveys the fact that the District, and not EPA, has reviewed the project for compliance with GHG PSD requirements, we recommend that this be further clarified in the Final Determination of Compliance.

[1] Brian Yeh, *Huntington Beach Energy Project, Request for Additional Clarifying Information* (February 19, 2013).

Equipment Description, Unit 9
PDOC Page 1; Draft Permit Page 2

Equipment Description, Unit 9 Duct Burner
PDOC Page 2; Draft Permit Page 4

A NOx limit of 30.88 lb/MMSCF Commissioning is listed in both the PDOC and Draft Permit. This value is not an emission limit; it is a derived average emission factor for use in calculating NOx emissions during the commissioning period for the purpose of determining obligations under the RECLAIM program. Similarly, the 9.88 lb/MMSCF Interim value is not a limit, but an emission factor for calculating RECLAIM emissions during the interim period between commissioning and certification of the NOx CEMS.

The Equipment Description tables in the Draft Permit include footnotes that clarify the origin and nature of the values in this table (e.g., footnote 1 reads: "(1) (1A) (1 B) Denotes RECLAIM emission factor."). Our understanding of the conditions in Section H is that the footnotes in the Draft Permit are intended to apply. We request that the footnotes already contained in the Draft Permit be added to the table in the FDOC.

We also request that Conditions A99.12 and A99.13, which refer to these values, be amended to refer to them as emission factors for use in RECLAIM, not as emission limits.

Finally, we believe the facility is not a major facility for HAPS, and contrary to the permit conditions listed on these pages, Unit 9 and its duct burner are not subject to 40 CFR 63 Subpart YYYY. The emission factors used by the District to estimate HAP emissions from the new turbines, and for the existing turbines, are for uncontrolled emissions from a gas turbine.[2] All of the turbines at the ESP facility are equipped with oxidation catalysts. In the past, El Segundo Power has applied a 50% control efficiency to oxidation catalysts, consistent with the statement in AP-42 that "the performance of these catalyst oxidation systems on combustion turbines results in 90-plus percent control of CO and about 85 to 90 percent control of formaldehyde. Similar emission reductions are expected on other HAP pollutants."[3] We believe that a catalyst control efficiency of at least 50% should continue to be applied to formaldehyde emissions from both the new and existing units and, based on this more representative factor, the facility is not a major source of HAPS, and Unit 9 and its duct burner are not subject to 40 CFR 63 Subpart YYYY.

[2] AP-42, Table 3.1.3.
[3] AP-42, p. 3.1-7.

Equipment Description, Unit 9 SCR Catalyst

PDOC Page 3; Draft Permit Page 5

The dimensions of the SCR catalyst in the PDOC are for a single catalyst module. The SCR for Unit 9 will be constructed using an array of modules 3 wide by 11 high.[4] The correct dimensions of the catalyst array are approximately:

Height: 70 feet 5 inches
Width: 29 feet 8 inches
Depth: 1 foot 9 inches

In addition, the "Conditions" column in the PDOC lists Condition D29.3 as an applicable condition. There is no Condition D29.3.

Equipment Description, Unit 11

PDOC Page 3-4; Draft Permit Page 6

Equipment Description, Unit 12

PDOC Page 5; Draft Permit Page 8

A NOx value of 96.58 lb/MMSCF Commissioning is listed in both the PDOC and Draft Permit. This value is not an emission limit—it is a derived average emission factor for use in calculating NOx emissions during the commissioning period for the purpose of determining obligations under the RECLAIM program. Similarly, the 16.16 lb/MMSCF Interim value is not a limit, but an emission factor for calculating RECLAIM emissions during the interim period between commissioning and certification of the NOx CEMS.

The Equipment Description tables in the Draft Permit include footnotes that clarify the origin and nature of the values in this table (e.g., footnote 1 reads: "(1) (1A) (1 B) Denotes RECLAIM emission factor."). Our understanding of the conditions in Section H is that the footnotes in the Draft Permit are intended to apply. We request that the footnotes already contained in the Draft Permit be added to the table in the FDOC.

We also request that Conditions A99.14 and A99.15, which refer to these values, be amended to refer to them as emission factors for use in RECLAIM, not as emission limits.

Also, the PDOC lists the PM_{10} limit for Unit 11 as 9.5 lb/hr, while the Draft Permit lists the PM_{10} limit as 5 lb/hr. The Draft Permit is correct.

Finally, the PDOC lists Subpart KKKK NOx limit for Unit 11 as 25 ppm, while the Draft Permit lists the NOx limit as 15 ppm. The PDOC is correct.

[4] See letter from Elizabeth Govey, Cormetech, dated May 29, 2013.

NOx Limit for Auxiliary Boiler

PDOC Page 6; Draft Permit Page 14

The PDOC and the Draft Permit both list the NOx limit as 5.0 ppmv. The value we proposed, and the value we believe to be appropriate for this unit, is 9 ppmv.[5]

All of the documents submitted by the applicant show a value of 9 ppm.

The following information is provided by Cleaver Brooks[6] in a letter provided by the vendor at the request of the District:

> *In addition, the above Cleaver-Brooks system will guarantee the following emissions rates between 25-100% MCR will not be exceeded:*
>
> *NOx: 0.0109 lbs/MMBtu, 0.4 lbs/hr*
> *CO: 0.0370 lbs/MMBtu, 1.3 lbs/hr*

These emission rates correspond to 9 ppmv @ 3% oxygen for NOx and 50 ppmv @ 3% oxygen for CO.

However, page 93 of the PDOC indicates the following:

> *The auxiliary boiler has the following concentration limits as provided by Cleaver Brooks:*
>
> *NOx = 5 ppmvd at 3% O2, dry*
> *CO = 30 ppmvd at 3% O2, dry*

The emission calculations on page 94 of the PDOC use an emission rate for NOx of 0.4 lb/hr, which corresponds to 9 ppmv at full boiler capacity. However, the emissions in Table C-2 are based on 5 ppmv.

Based on discussions with District staff, we understand that the 5 ppm NOx limit is considered by the District to have been achieved by a small boiler for which a permit with a 5 ppm limit was issued in late 2012 or early 2013, which has been in operation for more than six months and which has demonstrated continuous compliance for that period. We also understand that the District has documentation indicating that the vendor has provided a performance guarantee on a similar boiler at 5 ppm NOx. The first example would arguably establish "achieved in practice" BACT, while the second example would arguably support a determination of technological feasibility.

However, the documents relied upon by the District to establish the new BACT level are not in the record for this permit application; we have requested copies of the District permit documents upon which the 5 ppm limit was based. Without those documents, we are unable to confirm that the boiler relied upon by the District for its determination is

[5] See the permit application, Table 19; District Form 400-E-9a; Appendix K, p. 53-56.
[6] Letter from Rick Fiorenza (Cleaver Brooks) to Steve Rose (NRG) dated May 20, 2013; provided to the District on May 24, 2013.

capable of operating under the duty cycle anticipated for the ESPFM auxiliary boiler, which includes significant operation at low loads for extended periods of time, and short periods of operation at full load (during startups of the combined cycle unit).

We will work with the District and the vendor to ensure that the best available control technology is included in the project.

Equipment Description, Auxiliary Boiler

PDOC Page 6; Draft Permit Page 14

Listed below are several corrections we believe should be made to the PDOC's list of conditions applicable to D112, the auxiliary boiler.

- Condition A63.4 lists monthly emission limits for Units 11 and 12; these limits are not applicable to the auxiliary boiler.
- Condition D29.4 does not exist.
- Condition D29.13 should apply to the auxiliary boiler.
- Condition E 193.5 requires that the unit be vented to an oxidation catalyst and SCR control system. The auxiliary boiler is not equipped with either.
- Condition K40.1 does not exist.
- Condition K40.5 should apply to the auxiliary boiler.

Ammonia Injection Rate Unit 9

PDOC Page 13; PDOC Page 60; Draft Permit Page 35

In response to questions by District Staff, on July 1, 2013, the Applicant submitted supplemental information about the SCR systems. In that letter, the maximum ammonia injection rate for Unit 9 was revised to 139.8 lb/hr. Table 5 and Condition D12.14 both show 135 lb/hr (from the original application). The most recent values should be used.

Ammonia Injection Rate Units 11 & 12

PDOC Page 14; PDOC Page 61; Draft Permit Page 36-37

In response to questions by District Staff, on July 1, 2013, Applicant submitted supplemental information about the SCR systems. In that letter, the maximum ammonia injection rate for Unit 11 and 12 was revised to 67.8 lb/hr (each). Table 6 and Condition D12.17 both show 47 lb/hr (from the original application). The most recent values should be used.

Retirement of Boilers #3 and #4

PDOC Page 19-20

The Applicant acknowledges that the Permit to Operate for Boiler #3 was surrendered on July 23, 2013, and that it is the policy of the District to require the equipment to be

rendered "permanently inoperable." However, the Applicant does not concur that each of the "minimum conditions" listed in the PDOC are necessary to render Boiler #3 permanently inoperable. The boiler becomes permanently inoperable when sufficient components are removed and fuel and water feed systems are substantially dismantled. Boiler #3 became legally inoperable with the surrender of permits on July 23, 2013. It became permanently inoperable physically with the disconnection and flanging of the fuel supply, removal of the V-cones, and the disconnection of the supporting transformer. These actions occurred as described in the Applicant's Retirement Plan for El Segundo Generating Station Unit 3,[7] dated June 28, 2013. In addition to the completed Unit 3 retirement tasks, we propose to incorporate the following additional steps into our Unit 3 Retirement Plan, in lieu of the ones suggested in the PDOC:

1. Remove each of the 24 gas valves that support each burner and related control equipment, and remove the igniters, fuel regulators, and V-cones (note – these have already been removed).
2. Remove a significant portion of each of the fuel supply lines which supply natural gas to the Unit 3 boiler/burner assembly that are accessible (note – adjoining Unit 4 is operational and all safety considerations will be made to ensure no impact to the continued operation of fuel lines that serve Unit 4). In addition, remaining fuel lines leading to the boiler will be flanged on the boiler side so as to render the lines incapable of accepting fuel.
3. Disconnect the start-up boiler feedwater pump and associated Boiler #3 piping, ensuring that the boiler is not capable of receiving feedwater.

Applicability of NESHAPS Subpart YYYY

PDOC Page 27

As discussed above, the HAP emission calculations are based on uncontrolled (i.e., no oxidation catalyst) emission factors for both the existing and new units. This assumption results in a conservative estimate which is acceptable for the health risk assessment. All of the turbines at the ESP facility are equipped with oxidation catalysts. In the past, El Segundo Power has applied a 50% control efficiency to oxidation catalysts, consistent with the statement in AP-42 that "the performance of these catalyst oxidation systems on combustion turbines results in 90-plus percent control of CO and about 85 to 90 percent control of formaldehyde. Similar emission reductions are expected on other HAP pollutants."[8] We believe that a catalyst control efficiency of at least 50% should continue to be applied to formaldehyde emissions from both the new and existing units and, based on this more representative factor, the facility is not a major source of HAPS, and Unit 9 and its duct burner are not subject to 40 CFR 63 Subpart YYYY.

[7] Letter from George Piantke to Kenneth Coates, *Retirement Plan for El Segundo Generating Station Unit 3* (June 28, 2013)
[8] AP-42, p. 3.1-7.

CAM requirements for VOC for Unit 9

PDOC Page 28

Compliance with the VOC limit is achieved through combustion control. The effect of the oxidation catalyst on VOC concentration is not quantified, and is assumed to be zero for the purposes of calculating emissions from and demonstrating compliance for the unit. Because compliance is achieved without the use of control equipment, CAM does not apply.

Offsets

PDOC Page 34

The discussion of the applicability of Rule 1304(a)(2) to the Trent 60 units does not include the design features that qualify them as advanced combustion sources.[9] Instead, the District relies on the definition of approved advanced combustion sources in SCAQMD Rule 1135 to reach its conclusion that the Trent units qualify for the Rule 1304(a)(2) exemption. While we agree with the District's conclusion, we point out that the numerical benchmark contained in Rule 1135 is not part of the definition in Rule 1304. Furthermore, even though the Trent turbines meet the benchmark efficiency, the reason that they qualify as advanced combustion sources is because of their design features which make them efficient, not the actual efficiency achieved. We request that the PDOC be revised to include this clarification of the basis for the exemption.

GHG PSD Applicability

PDOC Page 41

The PSD applicability criteria for GHG emissions presented on this page in the PDOC are outdated. The major facility threshold for GHGs is 100,000 tons per year, and the Major Modification significance threshold is 75,000 tons per year. The District's analysis reflects the current, appropriate criteria, but the discussion on this page should be corrected.

SOx Limits and Emission Factors for Unit 9

PDOC Page 55; Draft Permit Page 21

SOx Limits and Emission Factors for Units 11 & 12

PDOC Page 56; Draft Permit Page 22

The emission factor for SOx emissions (Conditions A63.3 and A63.4) should be 0.71 lb/MMSCF, not 0.6 lb/MMSCF. Monthly emissions limit for SOx should be 1,118 lb.

(0.25 grains/100 SCF)*(10^4 100 SCF/MMSCF) *(1 lb/7000 grains) * (2 lb SO_2/lb S)

= 0.71 lb SO_2/MMSCF

[9] See the June 27, 2013 letter from Tom Andrews to Ken Coats for more details about these features.

Everywhere in the PDOC that a SOx emission factor of 0.60 lb/MMSCF is used, a SOx emission factor of 0.71 lb/MMSCF should be used instead.

Startup Limitations for Unit 9

PDOC Page 57; Draft Permit Page 27-28
PDOC Page 59; Draft Permit Page 331-32

There are two kinds of startups for Unit 9: traditional starts and fast starts. Emissions of all pollutants from a traditional startup are higher than those for a fast startup. The permit includes conditions limiting the number of starts. The purpose of the limits is to ensure that the assumptions used to calculate emissions for various time periods are not exceeded. For this reason, the conditions should limit the number of traditional starts as well as the number of total starts. There is no reason to limit the number of fast starts, because using a fast start instead of a traditional start will result in lower emissions.

In the permit application, monthly emissions were calculated assuming 16 days with 2 fast starts, and 15 days with 1 fast start and 1 traditional start, for a total of 47 fast starts and 15 traditional starts. Daily maximum emissions were calculated using the higher-emission scenario of one fast and one traditional startup.

Permit Condition A195.12 imposes annual limits related to startups. It limits fast starts to 150 and traditional starts to 50. Instead, we believe it should limit total starts to 200 and traditional starts to 50, since that would limit the maximum annual emissions attributed to startups.

Permit Conditions A195.13 and A195.14 repeat the same limitations on startups. We believe the same change should be made to these conditions as well.

Permit Condition C1.7 imposes monthly limits related to startups. It limits the total number of startups to 62 per month, the number of fast startups to 47 per month, and the number of traditional startups to 15 per month. It also limits the number of fast startups to 1 per day, which is not consistent with the monthly limit of 47.

We request that the limits on the number of fast startups be deleted, leaving only the limits on total startups and traditional startups. We also request clarification that startups during the commissioning period are not limited, nor counted toward annual limits.

We also request the addition of language addressing the situation where a startup is interrupted, then immediately restarted. The proposed language is similar to language in other permits issued by the District.[10]

[10] See, for example, the permit for Facility 152707, CPV Sentinel.

SCR Temperature Limits for Unit 9
PDOC Page 60; Draft Permit Page 36

SCR Temperature Limits for Units 11 & 12
PDOC Page 61; Draft Permit Page 37

Permit Condition D12.15 requires that the inlet temperature of the SCR reactor be maintained between 300°F and 650°F. Permit Condition D12.18 requires that the inlet temperature of the SCR reactor be maintained between 600°F and 1,125°F.

These permit conditions do not include an exemption for startups and shutdowns, which are routine, anticipated operating modes where temperatures will be outside the specified range. We believe that language excluding periods of startup and shutdown should be added to these conditions.

Miscellaneous Corrections

On Page 15 of the PDOC, the units of space velocity in Tables 7 and 8 are given as ft^{-1}. The correct units are hr^{-1}. Also, each table contains an extra row that should be deleted (7^{th} row, "Stack Outlet VOC"). VOCs from the project are controlled by combustion design. Although the oxidation catalyst is expected to reduce VOC emissions, the actual reduction cannot be predicted, and is not being relied upon for compliance.

On page 7 of the Draft Permit, the description of Stack S105 has a typo. The height and diameter are both listed twice, and the second listing of the diameter is incorrect. On Page 4 of the PDOC, the diameter of S105 should be corrected to 11.1 feet.

On page 55 of the Draft Permit, Condition E193.3 has a typo. The list of devices subject to the condition includes D106 (Unit 12). This unit should not be subject to Condition E193.3.

Respectfully,

Tom Andrews

cc: George Piantka, NRG Energy
Ken Riesz, El Segundo Power, LLC
Robert Mason, CH2M Hill
John McKinsey, Locke Lord

Proposed Revisions to PDOC
January 27, 2014

PDOC Page 1:

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
TURBINE, UNIT NO. 9, NATURAL GAS, GENERAL ELECTRIC, MODEL 7FA.05, FAST-START, COMBINED CYCLE, WITH DRY LOW-NOX BURNERS, 2,168 MMBTU/HR HHV @ 41°F, WITH: A/N: 548594 HEAT RECOVERY STEAM GENERATOR (HRSG) GENERATOR, SERVING UNIT NO. 9, 222 GROSS MW @ 41°F STEAM TURBINE, GENERAL ELECTRIC, MODEL SC GENERATOR, SERVING STEAM TURBINE, 112 GROSS MW @ 41°F.	D90	D95, C96	NOx: MAJOR SOURCE	**NOx**: 2.0 PPMV (4) [RULE 2005, RULE 1703-PSD-BACT]; **NOx**: 30.88 LB/MMSCF COMMISSIONING (1) [RULE 2012]; **NOx**: 9.42 LB/MMSCF INTERIM (1) [RULE 2012]; **NOx**: 15 PPMV (8) NATURAL GAS [40CFR60 SUBPART KKKK];**CO**: 2.0 PPMV (4) [RULE 1703 PSD-BACT]; **CO**: 2,000 PPMV (5) [RULE 407]; **VOC**: 2.0 PPMV (4) [RULE 1303-BACT]; **PM10**: 9.5 LB/HR (4) [RULE 1303]; **PM**: 0.1 GR/SCF (5) [RULE 409]; PM: 11 LBS/HR (5) [RULE 475]; **PM**: 0.01 GR/SCF (5A) [RULE 475]; **SO2**: 0.06 lb/MMBTU (8)[40CFR 60 SUBPART KKKK]; **SO2**: (9)[40CFR 72 – ACID RAIN]; ~~**CH2O**: 0.091 PPMV (8) 40 CFR 63 SUBPART YYYY~~	A63.3, A99.12, A99.13, A195.12, A195.13, A195.14, A327.1, B61.2, C1.7, D29.10, D29.11, D29.12, D82.6, D82.7, E193.2, E193.5, E193.6, I297.3, K40.5, K67.6

Add footnotes 1-10 from Facility Permit to all Equipment Description tables.

DRAFT PERMIT: Delete CH2O limit at top of page 2.

PDOC Page 2:

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
BURNER, DUCT, NATURAL GAS, 268 MMBTU/HR HHV @ 41°F, LOCATED IN THE HRSG OF GAS TURBINE NO. 9 WITH A/N 548594	D95	D90	NOX: MAJOR SOURCE	**NOx**: 2.0 PPMV (4) [RULE 2005, RULE 1703-PSD-BACT]; **NOx:** 30.88 LB/MMSCF COMMISSIONING (1) [RULE 2012]; **NOx:** 9.42 LB/MMSCF INTERIM (1) [RULE 2012]; **NOx:** 15 PPMV (8) NATURAL GAS [40CFR60 SUBPART KKKK]; **CO**: 2.0 PPMV (4) [RULE 1703 PSD-BACT]; **CO:** 2,000 PPMV (5) [RULE 407]; **VOC**: 2.0 PPMV (4) [RULE 1303-BACT]; **PM10**: 9.5 LB/HR (5) [RULE 1303]; **PM:** 0.1 GR/SCF (5A) [RULE 409]; **PM:** 11 LBS/HR (5B) [RULE 475]; **PM:** 0.01 GR/SCF (5C) [RULE 475]; **SO_2**: 0.06 lb/MMBTU (8)[40CFR 60 SUBPART KKKK]; **SO_2:** (9)[40CFR 72 – ACID RAIN]; ~~**CH2O:** 0.091 PPMV (8) 40 CFR 63 SUBPART YYYY~~	A99.12, A99.13, A195.12, A195.13, A195.14, A327.1, B61.2, C1.7, D29.10, D29.11, D29.12, D82.6, D82.7, E193.2, E193.5, I297.3, K40.5, K67.6

Add footnotes 1-10 from Facility Permit

DRAFT PERMIT: Delete CH2O limit at top of page 4.

PDOC Page 3

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 9, CORMETECH, CATALYST VOLUME: 2,050 FT^3; WIDTH (APPROXIMATELY): ~~9~~ 29 FT ~~10~~ 8 IN; HEIGHT: ~~6~~ 70 FT ~~4~~ 5 IN; LENGTH: 1 FT 9 IN; WITH: AMMONIA INJECTION, AQUEOUS AMMONIA A/N: 548591	C97	C96, S99		**NH3**: 5 PPMV (4) [RULE 1303-BACT]	D12.14, 12.15, D12.16, ~~29.3,~~ E179.7, E179.8, E193.2, E193.7

Add footnotes 1-10 from Facility Permit

DRAFT PERMIT: Same changes to equipment dimensions on page 5.

PDOC Page 3-4

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
GAS TURBINE, UNIT NO. 11, NATURAL GAS, ROLLS ROYCE , MODEL: TRENT 60, SIMPLE CYCLE, WITH WATER INJECTION, 516 MMBTU/HR @ 78°F, WITH: A/N: 548589 GENERATOR, 57.4 GROSS MW @ 78°F	D100	C106	NOX: MAJOR SOURCE	**NOx**: 2.5 PPMV (4) [RULE 2005, RULE 1703-PSD-BACT]; **NOx:** 96.58 LB/MMSCF COMMISSIONING (1) [RULE 2012]; **NOx:** 16.16 LB/MMSCF INTERIM (1) [RULE 2012];**NOx:** 25 PPMV (8) NATURAL GAS [40CFR60 SUBPART KKKK]; **CO**: 4.0 PPMV (4) [RULE 1703 PSD-BACT]; **CO:** 2,000 PPMV (5) [RULE 407]; **VOC**: 2.0 PPMV (4) [RULE 1303-BACT]; **PM10**: ~~9.5~~5 LB/HR (5) [RULE 1303]; **PM:** 0.1 GR/SCF (5A [RULE 409]; **PM:** 11 LBS/HR (5B) [RULE 475]; **PM:** 0.01 GR/SCF (5C) [RULE 475]; **SO_2**: 0.06 lb/MMBTU (8)[40CFR 60 SUBPART KKKK]; **SO_2:** (9)[40CFR 72 – ACID RAIN]; ~~**CH2O:** 0.091 PPMV (8) 40 CFR 63 SUBPART YYYY~~	A63.4, A99.14, A99.15, A195.15, A195.16, A195.17, A327.1, B61.2, C1.8, D29.10, D29.11, D29.12, D82.6, D82.7, E193.2, E193.5, E193.8, I297.4, K40.5, K67.6

Add footnotes 1-10 from Facility Permit

DRAFT PERMIT: Delete CH2O limit at top of page 6. Correct PM10 limit from 5 lbs/hr to 9.5 lbs/hr at bottom of page 6. Correct KKKK NOx limit from 15 ppm to 25 ppm in middle of page 6.

DRAFT PERMIT: Delete duplicate stack dimensions for S105 at bottom of Page 7.

PDOC Page 5

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
GAS TURBINE, UNIT NO. 12, NATURAL GAS, ROLLS ROYCE , MODEL: TRENT 60, SIMPLE CYCLE, WITH WATER INJECTION, 516 MMBTU/HR @ 78°F, WITH: A/N: 548589 GENERATOR, 57.4 GROSS MW @ 78°F	D106	C108	NOX: MAJOR SOURCE	**NOx**: 2.5 PPMV (4) [RULE 2005, RULE 1703-PSD-BACT]; **NOx:** 96.58 LB/MMSCF COMMISSIONING (1) [RULE 2012]; **NOx:** 16.16 LB/MMSCF INTERIM (1) [RULE 2012];**NOx:** 25 PPMV (8) NATURAL GAS [40CFR60 SUBPART KKKK]; **CO**: 4.0 PPMV (4) [RULE 1703 PSD-BACT]; **CO:** 2,000 PPMV (5) [RULE 407]; **VOC**: 2.0 PPMV (4) [RULE 1303-BACT]; **PM10**: 9.5 LB/HR (5) [RULE 1303]; **PM:** 0.1 GR/SCF (5A [RULE 409]; **PM:** 11 LBS/HR (5B) [RULE 475]; **PM:** 0.01 GR/SCF (5C) [RULE 475]; **SO_2**: 0.06 lb/MMBTU (8)[40CFR 60 SUBPART KKKK]; **SO_2:** (9)[40CFR 72 – ACID RAIN]; ~~**CH2O:** 0.091 PPMV (8) 40 CFR 63 SUBPART YYYY~~	A63.4, A99.14, A99.15, A195.15, A195.16, A195.17, A327.1, B61.2, C1.8, D29.10, D29.11, D29.12, D82.6, D82.7, E193.2, E193.5, E193.8, I297.4, K40.5, K67.6

Add footnotes 1-10 from Facility Permit

DRAFT PERMIT: Delete CH2O limit at top of page 8. Correct PM10 limit from 5 lbs/hr to 9.5 lbs/hr at bottom of page 8.

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Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
BOILER, AUXILIARY, CLEAVER BROOKS, MODEL NB-100D-40, WATERTUBE, NATURAL GAS, 36 MMBTU/HR WITH LOW NOX BURNER WITH A/N: 548593 BURNER, 36 MMBTU/HR, NATURAL GAS, WITH LOW NOX BURNER	D112		NOX: LARGE SOURCE	**NOx**: ~~59~~.0 PPMV (4) [RULE 2005, RULE 1703-PSD-BACT]; **CO**: 50 PPMV(5) [RULE 1703-PSD BACT]; CO: 2000 PPMV (5A) [RULE 407]; **PM**: 0.1 GRAINS/SCF (5) [RULE 409]	~~A63.4~~ B61.2, C1.9, ~~D29.4,~~ D29.13, E193.2, ~~E193.5~~ I297.6, ~~K40.1~~ K40.5

Add footnotes 1-10 from Facility Permit

DRAFT PERMIT: Revise the NOx limit from 5 ppmv to 9 ppmv at the top of page 14.

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Table 5 – CCGS SCR Catalyst Data Summary

PARAMETERS	**SPECIFICATIONS**
Catalyst Manufacturer	Cormetech, Inc.
Catalyst Description	Titanium/Vanadium/Tungsten (Ti-V-W)
Catalyst Volume	2,050 ft3
Space Velocity	23,000 hr-1
Ammonia Injection Rate	~~135~~ 139.8 lb/hr of 29% aqueous NH_3 at full load
Ammonia Slip	5 ppmvd NH_3 at 15% O_2 1 hour average
Catalyst Life	5 Years
Maximum Operating Temperature	750°F
Stack Outlet NOx	2.0 ppmvd NOx at 15% O2 1 hour average

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Table 6 – SCGS SCR Catalyst Data Summary

PARAMETERS	**SPECIFICATIONS**
Catalyst Manufacturer	Peerless
Catalyst Description	Titanium/Vanadium/Tungsten (Ti-V-W) with homogeneous honeycomb structure
Catalyst Volume	1,272 ft3
Space Velocity	23,580 hr-1
Ammonia Injection Rate	~~47~~ 67.8 lb/hr of 29% aqueous NH_3 at full load
Ammonia Slip	5 ppmvd NH_3 at 15% O_2 1 hour average
Catalyst Life	5 Years
Maximum Operating Temperature	1,125°F
Stack Outlet NOx	2.5 ppmvd NOx at 15% O_2 1 hour average

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As part of the offset package for the ESPR Project in which Gas Turbine Combined Cycle Units #5 and #7 (Devices D67 and D68) were issued Permits to Construct under A/Ns 470652 and 470656, El Segundo Power, LLC is required by Facility Permit Condition E193.3 to surrender the Permit to Operate (P/N F14448) for Boiler Unit #3 within 90 days of the initial start-up Gas Turbine Combined Cycle Units 5 and 7. The initial start-up date for Gas Turbine Unit #5 was April 24, 2013. The initial start-up date for Gas Turbine Unit #7 was April 9, 2013. El Segundo Power, LLC has permanently retired Boiler Unit #3 from service. The Permit to Operate for Boiler #3 was surrendered to the SCAQMD on July 23, 2013. SCAQMD policy requires that retirement of utility boilers must result in the equipment being permanently inoperable and therefore must consist of the following minimum conditions:

1. ~~Each~~ Sufficient components must be removed from each of the burners currently attached to the boiler as to render it incapable of operation ~~must be removed from the boiler in their entirety~~. This ~~not only~~ includes ~~the main burner assembly, but also all of~~ the associated igniters, electronic or other ignition devices (if applicable), fuel ~~nozzles~~regulators, V-cones and gas valves and their control ~~well as any other~~ devices ~~related to the burner structure or operation~~.

2. A significant portion of each of the fuel supply lines which supply natural gas to the boiler/burner assembly must be disconnected from the boiler/burner assembly, including all fuel lines which are accessible. ~~In addition, each of these fuel lines remaining sections must be filled with a suitable amount of concrete to prevent delivery of fuel.~~ In addition, all remaining fuel lines sections leading to the boiler must be flanged so as to render the lines incapable of accepting fuel.

3. The boiler feedwater pump and associated piping must be disconnected and removed from the system so as to ensure that the boiler is not capable of receiving feedwater.

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40CFR Part 63 Subpart YYYY – NESHAP for Gas Turbines
EPA has promulgated the National Emission Standards for Hazardous Air Pollutant (NESHAP) for various types of operation. NESHAP applies to facilities that are major sources of hazardous air pollutants. A major source facility is defined as having a single HAP emissions greater than 10 tons/year, or total HAP emissions greater than 25 tons/year. Based on the calculation of Appendix D-4, with the installation of the new power generating system the facility total HAP emissions will be ~~approximately 26.55 tons per year~~less than 25 tons/year. Thus, El Segundo Power, LLC is not a major source facility, and is not subject to the requirements of this subpart~~. §63.6100 of 40CFR Part 63 Subpart YYYY requires gas turbines to comply with a formaldehyde emission limit in Table 1 of 91 ppbvd measured at 15% O2. In addition, §63.6100 of 40CFR 63 Subpart YYYY requires an operating limitation in Table 2 such that the operator of the equipment maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer.~~
~~The applicable equipment will be conditioned to comply with these requirements.~~

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This subpart ~~also~~ does not ~~applies~~ apply to the VOC emissions because the VOC BACT limit is achieved through good combustion design, and does not rely on ~~with~~ the help of the oxidation catalyst. Although VOC may be reduced by the oxidation catalyst, it is expected that compliance will be achieved through good combustion. Emission calculations are based on the assumption of no VOC reduction by the oxidation catalyst. ~~The oxidation catalyst is effective when operating temperature is between 300°F and 750°F for the CCGS, and between 600°F and 1,125°F for the SCGS. The catalyst effectiveness is dependent upon the catalyst temperature. There will be a temperature gauge that monitors exhaust temperature continuously and records on the hourly basis. In addition t~~The operator will conduct periodic source testing. Compliance is expected.

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40CFR Part 72 – Acid Rain
El Segundo Power, LLC currently has SO2 allocations under the acid rain program, allocated to their Boilers 1 through 4 in Facility Permit Condition F18.1. The acid rain program is similar to RECLAIM in that facilities are required to cover SO2 emissions with ―SO2 Allowances‖ (similar to RTCs), or purchase of SO2 on the open market. The facility is also required to monitor SO2 emissions through use of fuel gas meters and gas constituent analysis (use of emission factors is also acceptable in certain cases) or with the use of exhaust gas CEMS. The ~~Scattergood~~ El Segundo facility will comply with the monitoring requirements of the acid rain provisions with the use of gas meters in conjunction with natural gas default sulfur data as allowed by the Acid Rain regulations (Appendix D to 40 CFR Part 75). If additional SO2 credits are needed, El Segundo

Power, LLC will obtain the credits from the SO2 trading market. Based on the above, compliance with this rule is expected.

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DETERMINE GHG PSD APPLICABILITY

EPA has developed the PSD and Title V Permitting Guidance Document for Greenhouse Gases (March 2011). For permits issued on or after July 1, 2011 PSD applies to GHGs if:

- The ~~source~~ facility ~~is otherwise subject to PSD (for another regulated NSR pollutant)~~emits or has the potential to emit 100,000 TPY CO2e, and
- The ~~source has a GHG PTE~~project results in a net emissions increase equal to or greater than 75,000 TPY CO2e

El Segundo Power, LLC has the potential to emit more than 100,000 TPY CO2e~~ is an existing PSD major source because of its NOx and CO emissions~~. The new power system ~~will have more than~~ has the potential to result in a net emissions increase of more than 75,000 tons per year CO2e emissions, as calculated in Appendix E. Therefore, the project is subject to the GHG PSD analysis.

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C. Thermal Efficiency
Power generation through fossil fuel combustion is a chemical reaction process. The thermal efficiency is defined as the ratio of the net power produced and the heating values of the fuel. The plant efficiency varies from 30% to over 60%, depending on many factors. The heat rate, measured in Btu/kWh, is generally used as a thermal efficiency indicator. ~~The thermal efficiency is at the highest when the reaction is at stoichiometric, and at the time when CO_2 emissions are the highest.~~

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

CONTAMINANT	EMISSIONS LIMIT
CO	39,191 LBS IN ANY 1 CALENDAR MONTH
VOC	7,546 LBS IN ANY 1 CALENDAR MONTH
PM10	8,222 LBS IN ANY 1 CALENDAR MONTH
SOx	~~945~~ 1,118 LBS IN ANY 1 CALENDAR MONTH

The above limits apply after the equipment is commissioned.

The operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: VOC: 2.92 lbs/mmscf, PM10: 4.51 lbs/mmscf, SOx: ~~0.60~~0.71 lbs/mmscf.

The operator shall calculate the emission limits for CO after the CO CEMS certification based upon readings from the SCAQMD certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated by using monthly fuel use data and the following factors: natural gas commissioning: 22.52 lbs/mmscf, normal operation: 13.86 lbs/mmscf.

[Rule 1303, Rule 1703 – PSD]

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Draft Permit Page 22-23; Draft Permit Page 25

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

The above limits apply after the equipment is commissioned. The above limits apply to each turbine individually.

CONTAMINANT	EMISSIONS LIMIT
CO	10,663 LBS IN ANY 1 CALENDAR MONTH
VOC	1,203 LBS IN ANY 1 CALENDAR MONTH
PM10	2,200 LBS IN ANY 1 CALENDAR MONTH
SOx	~~130~~ 154 LBS IN ANY 1 CALENDAR MONTH

The operator shall calculate the emission limit(s) by using calendar monthly fuel use data and the following emission factors: VOC: 2.66 lbs/mmscf, PM10: 9.98 lbs/mmscf, SOx: 0.~~60~~ 71 lbs/mmscf.

The operator shall calculate the emission limits for CO after the CO CEMS certification based upon readings from the SCAQMD certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated by using monthly fuel use data and the following factors: natural gas commissioning: 258.44 lbs/mmscf, normal operation: 9.30 lbs/mmscf.

[Rule 1303, Rule 1703 – PSD]

A99.12 The 30.88 lbs/mmscf NOx emission ~~limit(s)~~factor shall only apply during the turbine commissioning period to report RECLAIM emissions.
[Rule 2012]

A99.13 The 9.42 lbs/mmscf NOx emission ~~limit(s)~~factor shall only apply during the interim period after commissioning to report RECLAIM emissions.
[Rule 2012]

A99.14 The 96.58 lbs/mmscf NOx emission ~~limit(s)~~factor shall only apply during the turbine commissioning period to report RECLAIM emissions.
[Rule 2012]

A99.15 The 16.16 lbs/mmscf NOx emission ~~limit(s)~~factor shall only apply during the interim period after commissioning to report RECLAIM emissions.
[Rule 2012]

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A195.12 The 2.0 PPMV NOx emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, fast start-ups, traditional startups, and shutdown periods. The commissioning period shall not exceed 800 hours. Following the commissioning period, a ~~A~~ fast start-up shall not exceed 30 minutes. Following the commissioning period, a ~~A~~ Traditional start-up shall not exceed 60 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 30 minutes. The turbine shall be limited to a maximum of ~~150 fast~~ 200 start-ups per calendar year, and a maximum of 50 traditional start-ups per calendar year; startups during the commissioning period shall not be counted towards these limits. 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.

Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.
[Rule 2005 – BACT, Rule XVII – PSD]

A195.13 The 2.0 PPMV CO emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, fast start-ups, traditional start-ups, and shutdown periods. The commissioning period shall not exceed 800 hours. Following the commissioning period, a ~~A~~ fast start-up shall not exceed 30 minutes. Following the commissioning period, a ~~A~~ Traditional start-up shall not exceed 60 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 30 minutes. The turbine shall be limited to a maximum of ~~150 fast~~200 start-ups per calendar year, and a maximum of 50 traditional start-ups per calendar year; startups during the commissioning period shall not be counted towards these limits. 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. Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.
[Rule XVII – PSD]

A195.14 The 2.0 PPMV VOC emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, fast start-ups, traditional startups, and shutdown periods. The commissioning period shall not exceed 800 hours. Following the commissioning period, a ~~A~~ fast start-up shall not exceed 30 minutes. Following the commissioning period, a ~~A~~ Traditional start-up shall not exceed 60 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 30 minutes. The turbine shall be limited to a maximum of ~~150 fast~~ 200 start-ups per calendar year, and a maximum of 50 traditional start-ups per calendar year; startups during the

commissioning period shall not be counted towards these limits. 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. Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.

[Rule 1303 – BACT]

A195.15 The 2.5 PPMV CO emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods. This limit shall not apply to turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 206 hours. Following the commissioning period, ~~S~~start-up shall not exceed 30 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 20 minutes. The turbine shall be limited to a maximum of 480 start-ups per calendar year; startups during the commissioning period shall not be counted towards these limits. 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. Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.

A195.16 The 4.0 PPMV CO emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods. This limit shall not apply to turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 206 hours. Following the commissioning period, ~~S~~start-up shall not exceed 30 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 20 minutes. The turbine shall be limited to a maximum of 480 start-ups per calendar year; startups during the commissioning period shall not be counted towards these limits. 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. Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.

A195.17 The 2.0 PPMV VOC emission limit is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, startup and shutdown periods. This limit shall not apply to turbine commissioning, startup and shutdown periods. The commissioning period shall not exceed 206 hours. Following the commissioning period, ~~S~~start-up shall not exceed 30 minutes. Following the commissioning period, ~~S~~shutdown time shall not exceed 20 minutes. The turbine shall be limited to a maximum of 480 start-ups per calendar year; startups during the commissioning period shall not be counted towards these limits. 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. Written records of commissioning, fast-start-ups, traditional start-ups, and shutdowns shall be maintained and made available upon request from the Executive Officer.

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C1.7 The operator shall limit the number of startups to no more than 62 in any one calendar month.

~~The number of fast start-ups shall not exceed 47 per month.~~ The number of traditional start-ups shall not exceed 15 per calendar month.

The number of ~~fast~~ start-ups shall not exceed ~~1~~ 2 per day. The number of traditional start-ups shall not exceed 1 per day.

The NOx emissions during a fast start-up shall not exceed 36 lbs. NOx emissions during a traditional start-up shall not exceed 62 lbs.

The beginning of startup occurs at initial fire in the combustor and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted the process will count as one startup. 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.

The above limits apply after the equipment is commissioned.

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

[Rule 1303, Rule 1703 – PSD, Rule 2005]

C1.8 The operator shall limit the number of startups to less than 60 in any one calendar month.
The number of startups shall not exceed 4 per day.

The NOx emissions from a startup shall not exceed 28 lbs. The beginning of startup occurs at initial fire in the combustor and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted the process will count as one startup. 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.

The above limits apply after the equipment is commissioned.

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

[Rule 1703 – PSD, Rule 2005– Offset]

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DRAFT Permit Page 35-36

D12.14 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 twelve months.

The ammonia injection rate shall not exceed ~~135~~ 139.8 lb/hr
[Rule 2005– BACT, Rule 1703- PSD]

D12.15 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The 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 twelve months. The temperature shall be between 300°F and 650°F, except during startup and shutdown.

The above limits apply after the equipment is commissioned.

[Rule 2005– BACT, Rule 1703- PSD]

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D12.17 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 twelve months.

The ammonia injection rate shall not exceed ~~47~~ 67.8 lb/hr
[Rule 2005– BACT, Rule 1703- PSD]

D12.18 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR reactor.

The 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 twelve months. The temperature shall be between 600°F and 1,125°F, except during startup and shutdown.

The above limits apply after the equipment is commissioned.

[Rule 2005– BACT, Rule 1703- PSD]