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July 1, 2013

Via E-Mail and Hand Delivery

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

California Energy Commission

DOCKETED
00-AFC-14C

TN 71492

JUL 01 2013

Re: El Segundo Power Plant Project (00-AFC-14C)
Applicant's Letter dated July 1, 2013
to South Coast Air Quality Management District

Dear Sir/Madam:

On behalf of El Segundo Power Plant Project, enclosed please find for docketing Applicant's letter dated July 1, 2013, to South Coast Air Quality Management District.

Please don't hesitate to contact me if you have any questions regarding this filing.

Very truly yours,

A handwritten signature in blue ink that reads "John A. McKinsey".

John A. McKinsey

JAM:dh
Enclosure



**sierra
research**

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July 1, 2013

Kenneth L. Coats
AQ Engineer II
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

Subject: El Segundo Power Facility Modification Project – SCAQMD Permit Application

Dear Mr. Coats:

Provided below are responses to requests for additional clarifying information contained in the May 11, 2013 emails from you to George Piantka regarding the March 2013 permit application for the proposed El Segundo Power Facility Modification Project.

Request: For the CCGS at 100% capacity factor:

- *NH₃ use in gallons/hour*
- *NH₃ use in gallons/year*

Response: Please see Table 1.

Table 1			
Ammonia Use			
	Combined Cycle Unit	Simple Cycle Units (each)	Total for all three turbines
Ammonia use, lb/hr	41.1	19.9	
29.4% Aqueous Ammonia Use, lb/hr	139.8	67.8	
29.4% Aqueous Ammonia use, gal/hr (maximum)	18.7	9.1	36.9
Hours/yr at capacity	5,456	4,800	
Ammonia use, lb/yr	224,242	95,520	
29.4% Aqueous Ammonia Use, lb/yr	762,727	324,898	
29.4% Aqueous Ammonia use, gal/yr	102, 183	43, 527	189,237

Request: For the SCGS:

- *What is the expected capacity factor? 60%, 70%?*
- *NH₃ use in gallons/hour (at expected capacity factor)*
- *NH₃ use in gallons/year per turbine (at expected capacity factor)*

Response: The maximum annual operation of each SCGS will be 4,800 hours per year, including startup and shutdowns. The capacity factor is $4,800/8,760 = 55\%$. Hourly and annual ammonia usages are shown in the table above.

Request: New Power System (CCGS+SCGS) total annual NH₃ use (gallons/year)

Response: Annual total ammonia usage is shown in the table above.

Request: What is the molar ratio of NH₃ to NO_x? for each of the three SCR/CO catalyst systems? 1.33:1? 1.5:1?

Response: The ratio is 1.33:1 for the combined cycle unit. The ratio is 1.1:1 for each of the simple cycle units.

Request: For all SCR/CO catalyst units: Please confirm all optimum operating temperature windows (X deg F to Y deg F) as well as all maximum operating temperatures if they are different from "Y".

Response: The nominal operating range for all SCR catalysts is approximately 600-1125° F. The nominal operating range for all CO catalysts is approximately 600-1150° F. Note that these ranges are both nominal and approximate.

Previous Requests for Clarifying Information

The information below is provided in response to requests for additional clarifying information contained in the April 12, 2013 incomplete letter for the proposed El Segundo Power Facility Modification Project.

Request: Duct Burner: Please provide the name of the manufacturer and model number of the duct burner, and how many individual burners the device will be equipped with.

Response: The duct burner manufacturer has not yet been determined, nor has the number of individual burners. There will be four or five individual burners, depending upon the final design; the manufacturer will probably be either Coen or Zeeco. The burners will be a custom design; the model number (if any) will be assigned when the design is finalized. The capacity and emission characteristics will meet the parameters contained in the permit application.

The applicant will inform the District as soon as a vendor has been selected and the design finalized.

Request: Please provide performance warranties for each of the SCR and CO catalyst units for NOx, CO, and VOC. In addition, please provide a performance warranty for the NH3 slip rate, along with the dimensions (length, width and height) for each catalyst module.

Response: The following letters from vendors are attached:

- A letter from Cormetech, addressing the SCR catalyst for the GE turbine (Attachment 1); and
- A letter from BASF, addressing the oxidation catalyst for the GE turbine (Attachment 2).

A letter from Peerless Mfg. Co. regarding the SCR and CO catalyst control systems for the Trent units was previously provided as Attachment 4 of the applicant's April 7, 2013 submittal.

Request: Fast Start Technology: Please provide a technical discussion from the manufacturer of the design considerations and technology involved for the fast start-up technology.

Response: Please see the attached email provided by Mike Thuillez of GE (Attachment 3). The email refers to an attached description of GE's Purge Credit Valve system. That attachment is a confidential document, and GE has not provided the permission required for submittal to the District.

The design features of the purge credit system that permit fast start-up include changes to the fuel system hardware, and control system monitoring and interlock.

Request: Retirement Plans for Boiler Units No. 3 and 4: Current practice for the use of the Rule 1304(a)(2) modeling and offset exemption is for the SCAQMD to require the submittal of and subsequent approval of a formal retirement plan prior to construction of a new project. The plan should include at a minimum the steps and schedule that will be taken to permanently shutdown both boilers from service as well as the responsible party taking such steps to render this equipment permanently inoperable.

Response: As indicated in the permit application, Units 3 and 4 will each 1) cease operation, then 2) be demolished.¹ Because the new turbines will be constructed on ground currently occupied by Units 3 and 4, demolition must be complete prior to commencement of the onsite portion of project construction. El Segundo Power, LLC will be responsible for these steps.

The schedule for Unit 3 retirement is shown in Table 2.

¹ Application for the El Segundo Power Facility Modification (ESPFM) Project (March 2013), p. 2

Table 2 Retirement Actions for Unit 3		
Action	Deadline	Responsible Party
Surrender SCAQMD permit to operate for Unit 3 (Device D11, P/N F14448)	July 23, 2013	El Segundo Power, LLC
Close the natural gas supply line for Unit 3 and remove electrical connection to the motor operated valve (MOV); the boiler cannot operate without fuel.	July 23, 2013	El Segundo Power, LLC
Remove the Unit 3 boiler V-cones. V-cones are an intricate part of the Unit 3 boiler air/fuel control system; the boiler cannot be operated without the V-cones.	August 31, 2013	El Segundo Power, LLC

The schedule for last fire and completion of demolition for Unit 4 not yet been set, and is dependent on several factors, some of which are beyond the applicant's control. Nevertheless, the fact that construction of the new units cannot begin until the old units have been cleared away guarantees that the requirements for eligibility contained in Rule 1304(a)(2) will be met.

El Segundo Energy Center LLC appreciates the efforts that the District has made in its review of the ESPFM application, and will make every effort to provide the remaining requested information as quickly as possible.

Sincerely,



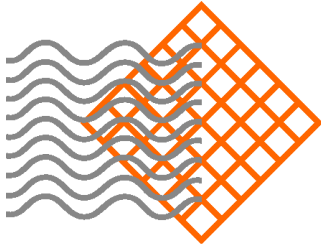
Tom Andrews

Attachments

cc: Craig Hoffman, CEC Project Manager
George Piantka, NRG
Ken Riesz, NRG
Steve Odabashian, NRG

ATTACHMENT 1

MAY 29, 2013 LETTER FROM CORMETECH TO NOOTER ERIKSEN
EL SEGUNDO 2 – SCR PERFORMRANCE CAPABILITIES



Cormetech, Inc.
Environmental Technologies
Treyburn Corporate Park
5000 International Drive
Durham, North Carolina 27712
919-620-3000
fax 919-595-8701

CORMETECH

via email smeierotto@ne.com
May 29, 2013

Steven A. Meierotto
Nooter Eriksen
1509 Ocello Drive
Fenton, MO 63026

Subject: El Segundo 2 - SCR Performance Capabilities

Dear Steve:

Cormetech has reviewed the expected gas turbine and duct burner emissions for the El Segundo 2 project in Los Angeles and can provide a catalyst that will meet the guaranteed stack NOx limit of 2.0 ppmvd @15% O2 and 5.0 ppmvd @15% O2 NH3 Slip. The catalyst will consist of an array of modules 3 wide x 11 high. The expected dimensions of the catalyst modules are approximately 9.9 ft Wide x 6.4 ft High x 1.8 ft deep.

Best regards,
Elizabeth Govey

CORMETECH CONFIDENTIAL

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ATTACHMENT 2

MAY 29, 2013 LETTER FROM BASF TO NOOTER ERIKSEN
BASF PROPOSAL EPZ00756 REV3, CAMET CO OXIDATION CATALYST, EL
SEGUNDO 2

05/29/2013

Attn: Steve Meierotto
Nooter/Eriksen

RE: BASF Proposal EPZ00756 Rev3
CAMET CO Oxidation Catalyst
El Segundo 2

Dear Steve:

Per our discussion, an updated quotation for the above application is attached, along with updated Performance Data. BASF has reviewed the expected gas turbine and duct burner emissions for the El Segundo 2 project in Los Angeles and can provide a catalyst that will meet the guaranteed stack CO limit of 2.0 ppmvd@15% O2 and 2.0 ppmvd@15% O2 for VOCs (Non-Methane / Non-Ethane – 50% Saturated). The catalyst will consist of an array of modules with a total width of approximately 22 ft; total height of 69ft and a depth of 2.5 in.

Best regards,



Bob Zeiss
Power Industry Sales Manager
Clean Air Division
BASF Corporation
25 Middlesex/Essex Turnpike
Iselin, NJ 08830

About BASF's Catalyst division

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics, adsorbents and other products.

About BASF

BASF is the world's leading chemical company: The Chemical Company. Its portfolio ranges from chemicals, plastics and performance products to agricultural products, fine chemicals and oil and gas. As a reliable partner BASF helps its customers in virtually all industries to be more successful. With its high-value products and intelligent solutions, BASF plays an important role in finding answers to global challenges such as climate protection, energy efficiency, nutrition and mobility. BASF has approximately 97,000 employees and posted sales of more than €62 billion in 2008. Further information on BASF is available on the Internet at www.basf.com.

ATTACHMENT 3

MAY 29, 2013 EMAIL FROM MIKE THUILLEZ (GE POWER & WATER) TO
STEVE ROSE (NRG)
FAST START TECHNICAL INFORMATION

Steve Hill

From: Thuillez, Mike (GE Power & Water) <mike.thuillez@ge.com>
Sent: Tuesday, May 28, 2013 2:20 PM
To: Rose, Steve
Subject: RE: Info Needed for El Segundo Power Facility Modification Project
Attachments: Purge Credit Valve System.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Steve,

Following up on the Fast Start topic, I have attached a description of our Purge Credit Valve system which enables the Fast Start capability besides our proprietary Mark VIe control logic changes that allow the operator to select the desired starting mode of the GT.

As you know, the other BOP changes to allow Fast Start would be HRSG materials of construction and design, terminal attemperation, main steam bypass, and auxiliary boilers which in this case would be supplied by others.

Call me if you have any questions.

Regards,

Mike