

DOCKETED

Docket Number:	07-AFC-06C
Project Title:	Carlsbad Energy Center - Compliance
TN #:	203813
Document Title:	Letter from Sierra Research to Dr. Moore regarding revised NOx Emissions Baseline Calculations for CECP
Description:	Previously submitted by Carlsbad Energy Center, LLC under Docket No. 07-AFC-6 without the Excel file.
Filer:	Kerry Siekmann
Organization:	Terramar Association & Self
Submitter Role:	Intervenor
Submission Date:	3/10/2015 8:54:12 PM
Docketed Date:	3/11/2015



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February 13, 2009

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BY HAND DELIVERY

Mr. Michael Monasmith
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

DOCKET	
07-AFC-6	
DATE	FEB 13 2009
RECD.	FEB 13 2009

**Re: Carlsbad Energy Center Project (07-AFC-6)
Revised Air Emissions Data**

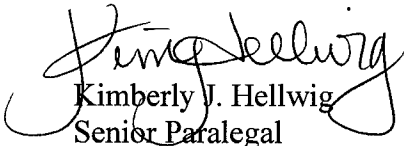
Dear Mr. Monasmith:

On behalf of Carlsbad Energy Center LLC, please find for docketing the following correspondence regarding the Carlsbad Energy Center Project ("CECP"):

- February 11, 2009 letter from Sierra Research to Dr. Steve Moore, San Diego Air Pollution Control District ("SDAPCD"), regarding NO_x Emission Reduction Credits for CECP; and,
- February 11, 2009 letter from Sierra Research to Dr. Steve Moore, SDAPCD regarding Revised NO_x Emissions Baseline Calculations for CECP with attachment.
 - The attachment is a large Excel file, which will be docketed and served electronically due to the excessive page length (> 3,000 pages). In addition, a CD-Rom containing the attachment will be provided to all interested agencies and intervenors.

Should you have any questions regarding this material, please do not hesitate to contact John McKinsey or Robert Mason directly.

Very truly yours,


Kimberly J. Hellwig
Senior Paralegal

Enclosures

cc: See Attached Proof of Service
Mr. Will Walters, California Energy Commission

PortInd3-1656723.1 0035434-00009

CORRESPONDENCE FROM SIERRA RESEARCH TO DR. STEVE MOORE
SAN DIEGO AIR POLLUTION CONTROL DISTRICT
RE NO_x EMISSION REDUCTION CREDITS
(FEBRUARY 11, 2009)

February 11, 2009



**sierra
research**

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Dr. Steve Moore
Engineering Group
San Diego Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131

Subject: Application for Authority to Construct for the Proposed Carlsbad Energy Center Project – NOx Emission Reduction Credits

Dear Dr. Moore:

On behalf of Carlsbad Energy Center LLC, we are pleased to submit the following information regarding the NOx emission reduction credits (ERCs) required for the proposed Carlsbad Energy Center Project (CECP). We recently submitted a revised NOx emission baseline calculation to the San Diego Air Pollution Control District (SDAPCD) for the existing boilers, Units 1, 2, and 3, at the Encina Power Station. This revision was necessary due to a correction to the initial Selective Catalytic Reduction (SCR) system operation dates for Units 1, 2, and 3. As agreed during the California Energy Commissioning public workshop on March 26, 2008, and as shown in the SDAPCD Preliminary Determination of Compliance (PDOC), the baseline period continues to be a five-year average for the period from 2002 to 2006. The revision to the 5-year average NOx emission baseline for the existing boilers, Units 1, 2, and 3, resulted in a reduction in the baseline from approximately 32.86 tons/year to approximately 32.21 tons/year.

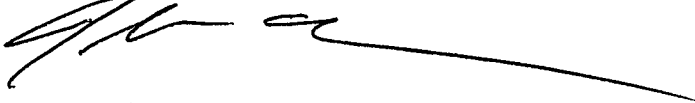
Due to this change in the NOx baseline emission levels for the existing boilers, it is necessary to reduce the allowable NOx annual potential to emit for the proposed new units from the current level of 72.76 tons/year shown in the PDOC to 72.11 tons/year to keep the net emission increase below major modification and PSD modification thresholds. With the updated NOx annual emission limit of 72.11 tons/year for the new units and the revised NOx emission baseline of 32.21 tons/year for the existing Units 1, 2, and 3, the net emission increase is approximately 39.90 tons/year. To determine the amount of NOx emission reduction credits (ERCs) required under the SDAPCD new source review (NSR) regulations, the net emission increase of 39.90 tons/year is multiplied by the offset ratio of 1.2, resulting a total NOx ERC amount of 47.88 tons/year.

Thus far the Applicant has purchased a total of 37.60 tons/year of NOx ERCs for the proposed project. A summary of these NOx ERCs is shown on the enclosed table. The remaining 10.28 tons/year of NOx ERCs required for the proposed project will be

purchased from the ERC marketplace. The Applicant will demonstrate control of the remaining NOx or NOx equivalent ERCs and provide documentation to that effect to the SDAPCD in the near future.

If you have any questions or need any additional information, please contact me at (916) 444-6666.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Andrews', with a long horizontal flourish extending to the right.

Tom Andrews
Senior Engineer

Enclosures

cc: Tim Hemig, Carlsbad Energy Center LLC
George L. Piantka, Carlsbad Energy Center LLC
John McKinsey, Stoel
Will Walters, CEC
Michael Monasmith, CEC
CEC Dockets Office (07-AFC-6)

CORRESPONDENCE FROM SIERRA RESEARCH TO DR. STEVE MOORE
SAN DIEGO AIR POLLUTION CONTROL DISTRICT
RE REVISED NO_x EMISSIONS BASELINE CALCULATIONS
(FEBRUARY 11, 2009)

February 11, 2009



**sierra
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Dr. Steve Moore
Engineering Group
San Diego Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131

Subject: Application for Authority to Construct for the Proposed Carlsbad Energy Center Project

Dear Dr. Moore:

On behalf of Carlsbad Energy Center LLC, we are pleased to submit the enclosed revised NOx emissions baseline calculations for the existing boiler Units 1, 2, and 3 at the Encina Power Station. It was necessary to revise the NOx emission baseline due to a correction to the Selective Catalytic Reduction (SCR) system initial operation dates for Units 1, 2, and 3. The previous NOx emission baseline calculations were based on initial SCR operation dates for Units 1, 2, and 3 of July 1, 2003, May 1, 2003, and February 28, 2003, respectively. Based on a more detailed review of facility records, it is necessary to change these initial SCR operation dates to the following:

- Unit 1: April 22, 2003
- Unit 2: March 23, 2003
- Unit 3: December 18, 2002

Since the change in SCR installation dates only affects NOx emission calculations, there is no need to change the baseline emission levels for the other pollutants (i.e., PM₁₀, SO_x, CO, and VOC). Consequently, the baseline emission levels for the other pollutants remain the same as shown in the SDAPCD's Preliminary Determination of Compliance (PDOC) package for the proposed project. As agreed during the California Energy Commissioning public workshop on March 26, 2008, and as shown in the PDOC, the baseline period continues to be a five-year average for the period from 2002 to 2006.

As with the previous NOx baseline emission calculations, during all of 2002 and a part of 2003 NOx emissions were not monitored by the new NOx Continuous Emissions Monitoring (CEM) system. During this missing data period, with the exception of boiler startup/shutdown hours, NOx emissions during routine operation were calculated using two different emission factors. For the missing data period prior to the SCR initial operation date, NOx emissions during routine operation were calculated based on the SDAPCD Rule 69 emission factor of 0.15 lbs/MW-hr. After the SCR initial operation

date, for the missing data period NOx emissions for routine operation were calculated using a NOx emission factor developed from emissions data collected by the new CEM system (which accounts for SCR control). During the missing data period for boiler startup/shutdown hours (hours with electric generation less than 1 MW), NOx emissions were calculated based on hourly fuel use and a startup/shutdown NOx emission factor of 0.039 lbs/MMBtu. This startup/shutdown emission factor was calculated based on a review of CEM data during a typical startup of one of the boilers.

A revised baseline NOx emissions summary table is enclosed for your review. The detailed NOx emission calculations and CEM NOx emissions data are included on the enclosed compact disc.

If you have any questions or need any additional information, please contact me at (916) 444-6666.

Sincerely,



Tom Andrews
Senior Engineer

Enclosure

cc: Tim Hemig, Carlsbad Energy Center LLC
George L. Piantka, Carlsbad Energy Center LLC
John McKinsey, Stoel
Will Walters, CEC
Michael Monasmith, CEC
CEC Dockets Office (07-AFC-6)

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION
FOR THE **CARLSBAD ENERGY CENTER**
PROJECT

Docket No. 07-AFC-6 PROOF OF
SERVICE
(As of 1/12/2009)

**Applicant's Correspondence to the
San Diego Air Quality Management District**

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-6
1516 Ninth Street, MS-15
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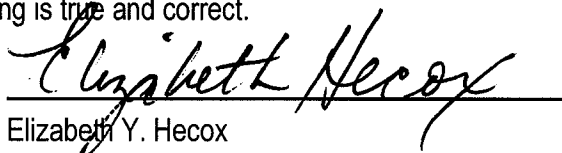
DECLARATION OF SERVICE

I, Elizabeth Y. Hecox, declare that on February 13, 2009, I deposited copies of **Correspondence to the South Coast Air Quality Management District re the Carlsbad Energy Center Project** in the United States mail at Sacramento, California, with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.


Elizabeth Y. Hecox