CH2M HILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA
95833-2937
Tel 916.920.0300
Fax 916.920.8463

May 6, 2002

Ms. Kristy Chew
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

RE: Data Responses, Set 2D
Cosumnes Power Plant (01-AFC-19)

On behalf of the Sacramento Municipal Utility District, please find attached 12 copies and one original of the Data Responses, Set 2D, in response to Staff's Data Requests dated January 4, 2002.

Please call me if you have any questions.

Sincerely,

CH2M HILL

John L. Carrier, J.D.
Principal Project Manager

c: Colin Taylor/SMUD
Kevin Hudson/SMUD
Steve Cohn/SMUD

COSUMNES POWER PLANT (01-AFC-19)

DATA RESPONSE, SET 2D

(Response to Data Request: 166)

Submitted by

SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD)

May 6, 2002

CH2MHILL

2485 Natomas Park Drive, Suite 600
Sacramento, California 95833-2937

Technical Area: Air Quality
CEC Author: Tuan Ngo, P.E.
CPP Authors: Sierra Research

BACKGROUND

Section 8.1.5 of the AFC indicates that the entire project will utilize four General Electric 7241FA gas turbine/heat recovery steam generator (HRSG) units. This section also indicates that dry low NOx combustor and selective catalytic reduction (SCR) systems will be utilized to control nitrogen oxide (NOx) emissions to 2 parts per million (ppm) on an annual basis, or 2.5 ppm over a shorter averaging time. Staff needs the following information to verify that the SCR system can maintain the NOx emissions at the lower proposed annual level of 2.0 ppm.

DATA REQUEST

166. Please provide vendor information related to the control efficiency of the SCR system proposed for the project. The information should include the type of catalyst, the bed depth, operating temperature range, scheduled maintenance and catalyst replacement, and a discussion of methods to be used to maintain the turbine NOx emissions on a continuous basis. If this information is not available, a vendor or manufacturer's performance guarantee can be used as a substitute.

Response: A response to this data request was previously provided on February 4, 2002 (Data Response, Set 2A). However, the CEC staff has indicated that the previous response was inadequate because it did not provide the specific information requested in the Data Request. Enclosed as Attachment AQ-166 is a letter from the expected HRSG vendor indicating that the information requested above by the CEC staff is not available at this early stage of the design process.

Nonetheless, in an attempt to provide the CEC staff with an adequate response, we are providing the following information based on data obtained from a similar project:

Type of catalyst:	Ceramic monolithic honeycomb or high turbulence plate type catalyst
Bed depth:	3.4 feet
Operating temperature range:	550°F to 800°F
Scheduled maintenance:	Period visual inspections of the catalyst material
Catalyst replacement:	3 years (per vendor guarantee); actual field experience suggests a longer replacement period will be adequate
Methods used to maintain turbine NOx emissions on a continuous basis:	Gas turbine emissions will be maintained by performing maintenance in accordance with the turbine vendor's recommendations. Stack NOx concentrations will be maintained in compliance with permit limits through the use of feed-forward and feed-back systems to control the flow of ammonia to the SCR system.

Attachment AQ-166

Letter from HRSG Vendor

NE NOOTER/ERIKSEN

April 11, 2002
NE-CO.004
Fax 916-732-5884
E-mail – sflake@smud.org

Sacramento Municipal Utility District
6100 Folsom Boulevard
Box 15830
Sacramento, CA 95582-1830

Attention: Mr. Scott Flake
Superintendent Project Development Engineering

Reference: Your Contract No. 4500012254
Nooter/Eriksen Project No. 025000 (Cosumnes)

Subject: SCR Questions

Dear Scott:

Please refer to your recent e-mails pertaining to SCR questions. It is too early in the project cycle for us to comment on VENDOR specifics for the SCR system. We normally would start the inquiry/design process with our catalyst suppliers a few months after your notice to proceed.

We have 2 qualified vendors for the catalyst (and design). Their systems are significantly different and a custom design would be needed for your project.

We prefer not to comment on the CEC questions until a catalyst supplier is selected and can participate in the discussions. It is unusual to have questions of this nature from the CEC and especially this early in the project cycle.

Thanks for your patience and understanding.

Yours very truly,

Jim Horner
Project Manager

cc: Steve Meierotto – N/E
Ron Griffin – N/E
Joe Elliott – N/E

G:\horner\PROJECTS\COSUMNES\Letters\NE-CO.004.doc

Offices: 1509 Ocello Drive, Fenton, MO 63026 ■ PO Box 66888, St. Louis, MO 63166-6888
Telephone: (636) 651-1000 Fax: (636) 651-1507 E-mail: sales@ne.com