



**sierra
research**

1801 J Street
Sacramento, CA 95814
(916) 444-6666
Fax: (916) 444-8373

June 24, 2004

Nancy Tronaas
Compliance Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Pastoria Energy Facility, 99-AFC-7

Dear Ms. Tronaas:

On behalf of Pastoria Energy Facility, LLC, we are pleased to submit the enclosed responses to the California Energy Commission staff's data requests related to the proposed amendment to the license for the Pastoria Energy Facility (99-AFC-7).

Sincerely,


Gary Rubenstein

enclosure

cc: Mike Ringer, CEC
Richard Karrs, San Joaquin Valley APCD
Gary Fuller, Calpine - PEF
Barbara McBride, Calpine

**PASTORIA ENERGY FACILITY
AMENDMENT REQUEST 2004-0437
DATA RESPONSES
(99-AFC-7C)**

Technical Area: Air Quality
Author: William Walters
Applicant Author: Gary Rubenstein, Sierra Research

OVERVIEW

The Project Owner requests approval to (1) modify the Emissions Reduction Credit (ERC) offset package for specific criteria pollutants, (2) modify the quantity of ERCs to be surrendered to the air district for PM₁₀ and SO_x, (3) establish operating parameters and emission limits for the startup/commissioning phase, and (4) make conforming changes to the air quality Conditions of Certification.

BACKGROUND

Staff requires additional information regarding the revised ERC package being proposed by the project owner. In order to complete our review we need additional information regarding several of the ERC certificates.

DATA REQUEST 1.

- Please provide the ERC certificate information, in the shaded columns, necessary to complete the following table.

ERC Certificate	Location of Emission Reduction	Date of Emission Reduction*	Method of Emission Reduction
NO_x			
S-1554-2	Elk Hills Gas Plant, Kern County	12/05/1990	Retrofit of 31 IC Engines with pre-combustion chambers
C-375-2	525 W. Third Street, Hanford	11/30/1987	Source shutdown
C-376-2	525 W. Third Street, Hanford	11/30/1987	Source shutdown
N-195-2	9571 S. Roberts Rd, Stockton	1/19/1988	Emission unit shutdown
VOC			
S-1549-1	NW ¼ Section 35, Township 12N, Range 24W Moco T – South		VOC collection/condensate system for fireflood operation.
SO_x/PM₁₀			
N-270-5	16777 S. Howland Rd., Lathrop		Modification to Acid Plant

* - This refers the date the emission reduction occurred not the original date that the emission reduction credit certificate was approved.

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Data Response 1.

The requested information is as follows:

Certificate S-1549-1	Date of reduction: 11/26/91
Certificate N-270-5	Date of reduction: 01/01/90

Confirming information from the SJVAPCD is enclosed in Attachment 1-1.

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BACKGROUND

It is Staff's understanding, based on the Project Owner's April 29th letter to the San Joaquin Valley Air Pollution Control District (District) regarding the Notice of Incomplete Application, that the request to modify conditions AQ-24, AQ-58, and AQ-67 is either being modified or withdrawn. However, Staff has not received an official modification to the current amendment request.

DATA REQUEST 2.

2. Please identify any changes to the request to modify Conditions of Certification AQ-24, AQ-58, and AQ-67.

Data Response 2.

The Applicant is awaiting the completion of the District's preliminary review of this submittal, and will submit proposed conforming revisions to Conditions of Certification AQ-24, AQ-58 and AQ-67 when the District's preliminary review is complete.

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DATA REQUEST 3.

3. Please identify any other changes in the March 19, 2004 Amendment Request that result from the District's NSR findings or through any other correspondence that has occurred with the District.

Data Response 3.

On April 29, 2004, the Applicant sent to the CEC a copy of a letter responding to the SJVAPCD's April 12, 2004 Notice of Incomplete Application regarding the proposed permit condition changes. At the present time, there are no additional changes related to this request. The Applicant will continue to send to the CEC CPM copies of correspondence between the Applicant and the SJVAPCD related to this request.

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BACKGROUND

The District will provide the final determination of the appropriate SO₂ for PM₁₀ interpollutant offset ratio for this project. Staff requires the District's final determination of the appropriate interpollutant offset ratio before it can complete its assessment of this amendment request.

DATA REQUEST 4.

4. Please provide a copy of the District's final SO₂ for PM₁₀ interpollutant offset ratio determination for this project.

Data Response 4.

The Applicant will provide a copy of the District's final SO₂ for PM₁₀ interpollutant offset ratio determination as soon as it is received.

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BACKGROUND

The Project Owner is requesting changes to Conditions of Certification AQ-6, AQ-28, and AQ-30. The District's final approved version of each condition is necessary for Staff to be sure that the final version of the revised Condition of Certification is consistent with the District Condition.

DATA REQUEST 5.

5. Please provide a copy of the District's final approved versions of these conditions.

Data Response 5.

The Applicant will provide a copy of the District's final approved versions of these conditions as soon as they are received.

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BACKGROUND

The Project Owner is requesting thirteen new conditions for initial commissioning (proposed conditions AQ-87 to AQ-99). Staff concurs that there is a need for initial commissioning conditions to protect both the public and the Project Owner; however, Staff needs additional information to ensure that the requested initial commissioning emission limits will not create the potential for significant short-term air quality impacts.

DATA REQUEST 6.

6. Please provide the appropriate substantiation of the emission (for NO_x, VOC, CO, PM₁₀ and SO₂) figures used for proposed Conditions AQ-94 and AQ-95. The substantiation should be data from General Electric and/or emissions data from the same model gas turbine from other commercial projects, and calculations to derive the emission figures shown in these two conditions.

Data Response 6.

The bases for each of the numbers shown in proposed conditions AQ-94 and AQ-95 are presented below in Table 6-1. These values are not based on vendor data, as the Applicant has not seen any vendor data related to commissioning activities that reflects the use of required emission controls.

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Table 6-1 Basis for Proposed Commissioning Limits		
Condition/ Pollutant	Proposed Limit	Basis
AQ-94/NOx	308 lbs/hr	Derived from LMEC permit limit of 616 lbs/hr total for two units during commissioning activities.
	3,200 lbs/day	Based on a review of CEM data during commissioning for Moss Landing units 1-4.
AQ-94/VOC	273 lbs/hr	Based on PEF maximum allowable VOC emissions during startup or shutdown.
	355 lbs/day	Same as daily emission limit during days when a startup or shutdown occurs.
AQ-94/CO	2,527 lbs/hr	Derived from LMEC permit limit of 5053.8 lbs/hr total for two units during commissioning activities.
	14,820 lbs/day	Calculated based on 12 hours of uncontrolled emissions at the PEF maximum allowable startup emission rate of 1235 lbs/hr.
AQ-94/PM10	216 lbs/day	Same as current daily emission limit during normal operations.
AQ-94/SOx	84 lbs/day	Same as current daily emission limit during normal operations.
AQ-95/NOx	342 lbs/hr	Calculated based on one turbine in commissioning at 308 lbs/hr, plus two turbines at base load at 17 lbs/hr each.
	4,100 lbs/day	Calculated based on one turbine in commissioning at 3,200 lbs/day, plus two turbines in normal operation at 450 lbs/day each.
AQ-95/VOC	282.5 lbs/hr	Calculated based on one turbine in commissioning at 273 lbs/hr, plus two turbines in normal operation at 4.75 lbs/hr each.
	1,065 lbs/day	Same as current daily emission limit during days when each turbine experiences a startup or shutdown.
AQ-95/CO	2,577 lbs/hr	Calculated based on one turbine in commissioning at 2,527 lbs/hr, plus two turbines in normal operation at 24.92 lbs/hr.
	19,046 lbs/day	Calculated based on one turbine in commissioning at 14,820 lbs/day, plus two turbines in normal operation at 2,113 lbs/day each.
AQ-95/PM10	648 lbs/day	Same as current daily emission limit during normal operation.
AQ-95/SOx	252 lbs/day	Same as current daily emission limit during normal operation.

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DATA REQUEST 7.

7. Please provide a modeling analysis of the maximum short-term NO_x and CO impacts that may occur based on the emission limits being requested in this amendment request. Please provide all input and output files including a description of the meteorological data used in the modeling analysis.

Data Response 7.

PEF is attempting to locate the modeling files that were previously used for the project, and which reflect the current site plan that has been approved by the Commission. The modeling files provided by the CEC Staff to PEF pre-date the approved site plan changes. PEF will submit the requested analysis as soon as practicable.