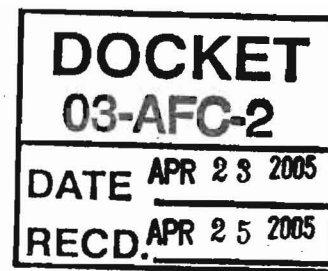


Dennis Jang, PE
Bay Area Air Quality Management District
BAAQMD
939 Ellis St.
San Francisco, CA 94109
djang@baaqmd.gov



Dear Mr. Jang,

**Comments of Californians for Renewable Energy, Inc. (CARE) on the
Los Esteros Critical Energy Facility Preliminary Determination of Compliance**

Thank you for the opportunity to comment on the Los Esteros PDOC Application number 8859 issued on March 14, 2005. We commented on the earlier application you issued for this project and we are relieved that you have decided to do a BACT evaluation for this project as we suggested in our earlier comments. However, we note that your decision to conduct a BACT evaluation was in response to comments from the EPA in a December 16, 2004 from Gerald Rios. The PDOC states on page 2;

After reviewing comments from the California Air Resources Board and EPA Region IX regarding the following permit condition that was included in the original Authority to Construct and Permit to Operate for the existing LECEF, the District has decided to conduct a BACT review for the proposed combined-cycle configuration of the LECEF.

Sunset Provision: Within three years of CEC Approval, The owner/operator must convert to either a combined cycle or cogeneration plant using BACT in effect at the time of conversion. If conversion does not occur the plant must cease operation. (Basis: California State Resources Code, Section 25552)

Comment #1 The District has failed to legally remove the sunset provision from the projects operating permit.

We felt all along that California code section 25552 was a federally enforceable condition as the requirements of the Clean Air Act require conformance with state laws and standards. The district illegally attempted to remove this Sunset Provision in the Los Esteros Title V letter to the ARB dated June 10, 2004 but never included deletion of the sunset provision in the Title V permit therefore subjecting it to public comment. The

district commented in that letter as follows:

In response to a request from the facility and because the condition was originally instituted at the request of the CEC and the CEC currently has no objections to its removal, the following condition has been deleted from the permit:

38. Sunset Provision: Within three years of CEC Approval, The owner/operator must convert to either a combined cycle or cogeneration plant using BACT in effect at the time of conversion. If conversion does not occur the plant must cease operation. (Basis: California State Resources Code, Section 25552)

Pursuant to BAAQMD Regulation 2-6-201, the removal of this permit condition is considered to be an administrative permit amendment since the permit condition is not federally enforceable.

The district made two false assumptions in its removal of the sunset provision. The first assumption is that this sunset provision could be removed as an administrative amendment under Section 2-6-201 (below) of the districts regulations. In order for a sunset provision to be removed as an administrative amendment it must be a non substantive amendment to a major facility review permit. The granting of a permanent license for a temporary facility does not qualify as a non substantive amendment. Further regulation 2-6-201 only allows the elimination of a sunset provision as an administrative amendment only when the sunset provision has already expired. In this case the sunset provision has not expired

BAAQMD Regulation 2-6-201 Administrative Permit Amendment: A non-substantive amendment to a major facility review permit. The following amendments are administrative amendments: changes in recordkeeping format that are not relaxations of applicable requirements, the correction of typographical errors, changes in permit format that are not alterations of applicable requirements, changes in source descriptions that are not alterations of applicable requirements, changes in the descriptions of applicable requirements that add detail but do not affect substantive requirements, deletion of requirements containing sunset dates that have passed, the identification of administrative changes at a facility (such as a replacement of the facility's responsible official or a change in ownership or operational control of the facility which involves no physical or operational changes to the facility), the deletion of sources, the approval of

a District rule into the SIP, the imposition of more frequent emission monitoring requirements, and changes to applicable requirements and related monitoring that are not federally enforceable.

The second incorrect assumption that the district made is that the sunset provision is not federally enforceable. Clearly the letter from the EPA on December 16, 2004 provides proof that in fact this provision is federally enforceable. Section 2-6-207 of the districts regulations require compliance with all limitations and conditions which are enforceable by the administrator of the U. S. EPA. At this time the district has not legally deleted the sunset provision from this Title V permit and the facilities license with the District will expire on July 2, 2005 requiring shutdown of this project.

Comment # 2 The District failed to comply with the BAAQMD Regulations 2-3-403-405

The AFC that was filed by the applicant on December 30, 2003 contained two phases one is the conversion to combined cycle that this application addresses the other phase of the AFC was recertification of the Los Esteros Critical Energy Facility as a permanent facility. The district failed to comply with regulation 2-3-403 which requires the district to conduct a determination of compliance for the recertification phase (Phase 1) within 180 days of the filing of the AFC (December 30, 2003). The District must issue a new PDOC specifying specific BACT requirements including compliance with the sunset provision and a description of mitigation measures which have changed from the previous license for the recertification phase of the Application for Certification 03 AFC-2. The district also failed to comply with regulation 2-3-404 which requires circulation of the preliminary decision on the recertification for public comment. The district also failed to comply with section 2-3-405 which requires a Determination of compliance to be issued within 240 days of December 31, 2003 for the conversion of the Los Esteros Project from a temporary facility to a permanent facility.

2-3-403 Preliminary Decision: Within 180 days of accepting an AFC as complete, the APCO shall conduct a Determination of Compliance review and make a preliminary decision as to whether the proposed power plant meets the requirements of District regulations. If so, the APCO shall make a preliminary determination of conditions to be included in the Certificate,

including specific BACT requirements and a description of mitigation measures to be required.

2-3-404 Public Notice, Comment and Public Inspection: The preliminary decision made pursuant to Section 2-3-403 shall be subject to the public notice, public comment and public inspection requirements contained in Section 2-2-406 and 407 of Rule 2.

2-3-405 Determination of Compliance, Issuance: Within 240 days of the acceptance of the AFC as complete, the APCO shall issue and submit to the commission a Determination of Compliance. If the Determination of Compliance cannot be issued, the APCO shall so advise the Commission. When the AFC is approved by the Commission, the APCO shall ascertain whether the Certificate contains all applicable conditions. If so, the APCO shall grant an authority to construct.

BACT Analysis

Comment # 3 SCONO_x is not included in the BACT / LAER analysis.

In a March 24, 2000 letter sent to local air pollution control districts, EPA Region 9 stated that the SCONO_x Catalytic Adsorption System should be included in any BACT/LAER analysis for combined cycle gas turbine power plant projects. The District has failed to include SCONO_x in the BACT evaluation for this project. SCONO_x has several advantages over SCR and has been demonstrated in practice for this class of turbine at the Redding Power unit 5 located at 17120 Clear Creek Road, Redding California. SCONO_x eliminates the need for ammonia for NO_x control which demonstrates significant advantages over the use of SCR in NO_x control. The ammonia emissions resulting from the use of SCR have environmental impacts through the potential to form secondary particulate matter such as ammonium nitrate. A second potential environmental impact that may result from the use of SCR involves the storage and transport of ammonia. The District should include a discussion of the SCONO_x technology and an updated cost analysis comparison for the two technologies. For the District's convenience we have include as Attachment A recent cost analysis for a SCONO_x application for a Sprint LM-6000 turbine developed for us by EmeraChem on October 17, 2003.

Comment #4 NO_x emission limits should be 2ppm with no allowance for excursions.

Recent combined cycle power plants in the BAAQMD have been permitted at 2ppm for NO_x and no allowances for excursions have been permitted. The recently approved Tesla Power Plant, the East Altamont Energy Centers have both been permitted at 2ppm with no allowance for excursions. To comply with the requirements of Section 25552 that this project was permitted under BACT for NO_x must be 2ppm without exception.

Comment # 5 BACT for CO is 4.0 ppmvd

District BACT Guideline 89.1.6 specifies BACT 2 (achieved in practice for CO for combined cycle gas turbines with a rated output of ≥ 50 MW as a CO Emission concentration of ≤ 4 ppmvd @15% O₂. This BACT specification is based upon the Sacramento Power Authority (Campbell Soup facility) located in Sacramento County, California. CARB Guidance for Power Plant Siting also list BACT for CO for this class of Turbine as 4 ppmvd. The Sithe Mystic Development Project at 39 Rover Street in Everett MA. is a combined cycle power plant that is now operating at a 2 ppm limit for CO emissions in conjunction with a 2ppm NO_x limit not to mention a 2ppm ammonia slip limit. The District should require this project to comply with current BACT for CO.

Comment #6 Ammonia Emissions

The project is proposing a 10ppm ammonia slip limit. Recently the Tesla Power Plant and the Metcalf Energy Center in the BAAQMD were permitted with an ammonia slip limit of 5ppm, The Air Resources Board Guidance for Power Plant Siting and Best Available Control Technology 1996 recommends a 5ppm ammonia slip limit or less. The South coast Air Quality Management District has adopted a 5ppm ammonia slip limit for combined cycle power plants. As mentioned above the Sithe Mystic Development project in Everett Mass. is attaining a 2ppm ammonia slip. Because the project area is in violation of the federal PM 2.5 standards and the project substitutes POC emission

reductions for NO_x emission reduction credits the potential for secondary formation of PM-2.5 should require this project to adopt a 5ppm ammonia slip limit.

Respectfully submitted,

By



Filed Electronically 4-23-2005
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Verification

I am an officer of the commenting corporation herein, and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except matters, which are therein stated on information and belief, and as to those matters I believe them to be true.

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

Executed on April 23rd, 2005, at Soquel, California



Michael E. Boyd – President, CARE
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cc.

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Robert Sarvey

03-AFC-2 Electronic Service List

SCR & Emx BACT Analysis

Turbine Size: 82 (MW)
 Operating Temperature: 850 °F

Control System Life (yr) 10
 Interest Rate (%) 10
 Tons/yr NOx Reduction 13
 Electricity cost (\$/kWh) \$ 0.08
 Natural Gas cost (\$/Therm) \$ 4.00

Operating Hours:
 sched. (hr/yr): 24
 day/week: 7
 week/yr: 48
 Hr/yr: 8600
 Shift/Day: 2

Description of Cost	Cost Factor	Emx Cost (\$)
Direct Capital Costs (DC):		
Purchased Equip. Cost (PE) + Offsets (time expenses):		
Basic Equipment (A)	52 MW	\$ 3,310,000
Auxiliary Equipment (B)	0.10 A included	0
Instrumentation	0.03 A included	0
CEM		0
Offsets		
Taxes and freight		264,800
PE Total:		3,574,800
Direct Installation Costs (DIC):		
Foundation & supports	0.05 PE	308,160
Handling and erection	0.08 PE	308,160
Electrical	0.02 PE	86,540
Piping	0.02 PE	86,540
Insulation	0.01 PE	44,770
Painting	0.01 PE	44,770
DIC Total:		664,940
DC Total (PE + DIC):		4,559,741
Indirect Costs (IC):		
Engineering	0.1 PE	0
Construction and field expenses	0.05 PE	178,740
Contractor fees	0.1 PE	367,480
Start-up	0.005 PE	40,000
Performance testing	0.004 PE	20,000
Contingencies	0.02 PE	100,000
IC Total:		666,220
Total Capital Investment (TCI = DC + IC):		5,255,961
Annualized Total Capital Cost (ATCC):		
Capital recovery	interest rate (%) 10 period (years) 10	855,363
Catalyst	Replacement	247,714
	Disposed	(81,746)
ATCC Total:		1,021,332
Direct Operating Costs (DOC):		
Operating Labor (OL)	10/shift 0.5 Pay Rate (\$/hr) 25	\$ 12,500
Supervisor Labor	15% of Operator	\$ 1,875
Maintenance Costs (M):		
Labor	10/shift 0.5 Pay Rate (\$/hr) 25	\$ 12,500
Equipment		\$ 12,500
Materials		\$ 12,500
Catalyst	Catalyst washing	\$ 36,000
Utility Costs:		
Electricity blowers	19 kw	11,931
Ammonia	lb/hr	426,880
Steam (for Steam Reforming/Carrier Gas)	6,667 lb/hr	60,640
Natural Gas	1,250 scf/hr	45,261
Performance loss	0.04% An eq	
Total DOC:		619,895
Indirect Operating Costs (IOC):		
Overhead	60% of O&M	\$ 23,425
Administrative	0.02 TCI	\$ 105,119
Insurance	0.01 TCI	\$ 52,960
Property Tax	0.01 TCI	\$ 52,960
Total IOC:		233,965
Total Annual Cost (ATCC+IOC):		\$ 1,675,110

NOx Emission Rate (ton/yr) at 25ppm 162.99
 NOx Emission Rate (ton/yr) at 2ppm 13.02
 Cost Effectiveness (\$/ton) **\$12,628**

Note:

- Assumptions:
- 1) Complete Emx catalyst charge washing performed annually (during annual plant shut down)
 - 2) 860°F superheated steam available for steam reforming (Emx regeneration gas production)