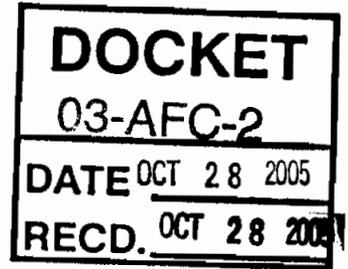


STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION



In the Matter of: ) Docket No. 03-AFC-2  
)  
)  
Application for Certification for )  
the Los Esteros Critical Energy )  
Facility Phase2 )

**COMMENTS OF CARE ON THE PRESIDING MEMBER'S PROPOSED  
DECISION FOR THE LOS ESTEROS CRITICAL ENERGY FACILITY**

**I. INTRODUCTION**

CARE pursuant to the Committees direction on October 7, 2005 herby submits comments on the Presiding Members Proposed Decision for Los Esteros Phase 2.

**Air Quality**

**BACT for CO**

The project fails to meet the BACT requirement for CO for combined cycle projects. The reason the LECEF 2 had to have the PDOC reissued was described on page 2 of exhibit 33 the FDOC.

- **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*

The PMPD relies on the BAAQMD determination that there are no other projects licensed with the same characteristics as the Los Esteros Facility.

“CARE is critical of the District’s approach and points to examples of other power plants which CARE believes have achieved NOx emission levels of 2 ppm, while meeting a CO level of 4 ppm, rather than the 9 ppm level approved in the FDOC. However, in both the FDOC and in its subsequent letter responding to comments, BAAQMD distinguished the characteristics of other power plant projects from those of the LECEF 2 and stated, “... the District is not aware of any other facilities that are comparable to LECEF operating with a NOx limit of 2.0 ppm that could serve as a basis for an achieved-in-practice BACT determination.” (Ex. 33, p. 20:¶ 1.) ( PMPD p. 149)

The commission needs to look no further than the last siting case the PICO Power Plant (02-AF-03) where the Commission certified an LM-6000 turbine in combined cycle to know that the BAAQMD is once again incorrect. The BACT for the Pico power plant which uses the same turbine and NOx control equipment as the Los Esteros Project was 2ppm NOx and 4ppm CO. In the FDOC for the PICO Power Plant (02-AFC-3 docket # 29406) the document that was accepted as evidence of regulatory compliance (LORS) for the PICO Power Plant the BAAQMD opined,

**"The Pico applicant has agreed to a CO emission limit of 4.0 ppmvd @ 15% O<sub>2</sub>, averaged over any rolling 3-hour period. This satisfies the current BACT 2 limitation as discussed above. Indeed, 4.0 ppmvd could be viewed as BACT 1, technologically feasible/cost-effective, for the LM 6000 size and class of turbine."**

The PICO Power Plant FDOC also states

**"The recently commissioned Valero 51 MW combined cycle plant, with a design configuration similar to the proposed Pico Plant, has a CO permit limit of 6.0 ppmvd when firing natural gas or natural gas/refinery fuel gas. However, recent performance data support the technological feasibility and cost-effectiveness of a 4.0 ppmvd CO limit."**

The CEC staff in its comments on the PDOC recommended a 4ppm CO limit (Docket # 34110). The EPA recommended a 4ppm CO limit in its comments on the PDOC (Docket # 33042) based on the Las Vegas Cogeneration Project.

The PMPD dismisses previous evidence in the PICO case as an administrative error on the part of the BAAQMD. No administrative error has occurred. The Commission is required by section 25552 to impose these BACT levels on the Los Esteros Project. **WE have requested that the Committee take judicial notice of the Pico Power Plant Decision 02-AFC-3 in our briefs** and we believe the PMPD must discuss why a Commission Decision requiring BACT for CO of 4ppm for this exact same turbine configuration is not being considered in this decision. We note that the hearing officer the author of this PMPD also was the hearing officer and author of the Pico Power Plant PMPD.

### **Ammonia Slip**

The PMPD relies on testimony from the air district the same air district that originally determined that no BACT analysis was necessary for this project and would have left the projects NOx emission capped at 2.5ppm not 2ppm for NOx. Fortunately for the Public and the environment the EPA and CARB, and the CEC Staff stepped in to require a BACT analysis from the District. The PMPD bases its decision on the correct ammonia slip for the LECEF 2 on BAAQMD testimony,

“This conclusion is based on a study that the District did about ten years ago. We did some monitoring and modeling in San Jose and in Livermore. And in both of those areas we determined that this nitrogen oxide to nitric acid conversion process was the rate-limiting step and controlled the production of particulates. (6/30 RT pp. 84:2-18” PMPD P.146)

The PMPD states “Staff’s position is thus at odds with the testimony from other air quality expert witnesses and with the **only relevant scientifically based study in the record**. While we will rely upon Staff expertise whenever reasonable, Staff’s expert opinions must be adequately supported in order to constitute substantial evidence upon which the Commission may rely.

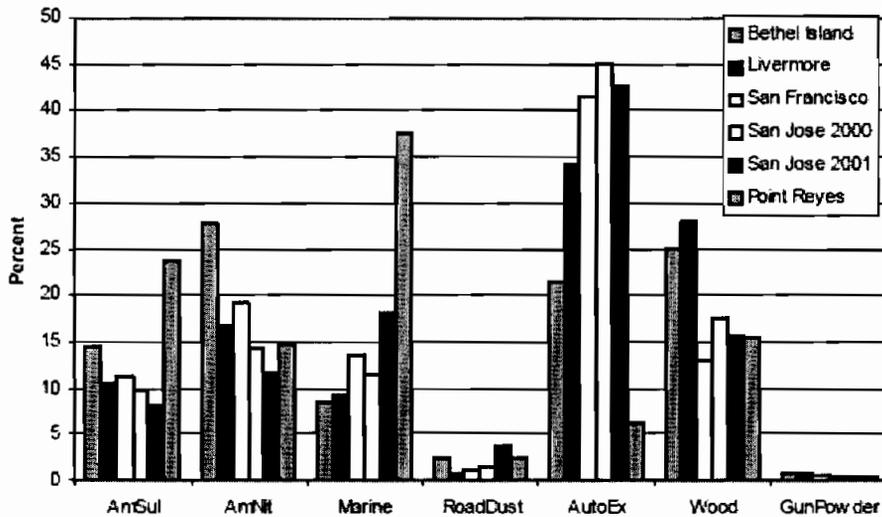
“Substantial evidence’ is defined in the CEQA Guidelines to include ‘expert opinion supported by facts.’ (PMPD p. 146)

The PMPD is incorrect because the scientific study quoted by the BAAQMD and the applicant is not in the record. The applicant and the BAAQMD failed to submit this study that is the basis of their testimony into the record. The study to be valid part of the decision must be available for evidentiary scrutiny otherwise the applicants and the BAAQMD testimony is nothing more than opinion and is not supported by facts as required by CEQA. It's ironic that the PMPD faults staff for not providing facts or analysis to back their opinion and then bases the ammonia slip decision on the applicant's testimony that is not supported by any facts or "Substantial evidence" in the record.

**The only scientific study in the record on ammonia concentrations in the project area is the annual monitoring Report for the Metcalf Energy Ecological preserve (Exhibit 2). On page 4-5 of that document it states, "Monthly NH3 concentrations varied from undetectable to greater than 5ppb." According to that testimony the area is not ammonia rich during portions of the year and even areas within the preserve had different ammonia concentrations." The BAAQMD ten year old study cited by the applicant and the district is effectively refuted by the only scientific study on ammonia concentration in the project area.**

The ammonia emissions from the LECEF are a regional problem because the ammonia emissions will in fact impact other parts of the BAAQMD and even other air districts. The ammonia emissions impacts are not limited to Livermore and San Jose, this is where the reasoning of the PMPD fails, even if it were true that the BAAQMD ten year old study was in the record and could be relied on to support this Decision. As demonstrated below from the BAAQMD September 12, 2005 "Staff Report Proposed Particulate Matter Implementation Schedule" figure1 page 5 [http://www.baaqmd.gov/pln/pm/sb656\\_staff\\_report.pdf](http://www.baaqmd.gov/pln/pm/sb656_staff_report.pdf) contributions to PM are varied throughout the BAAQMD. **A 10 year old limited report that is not in the record** on two locations in the nine county BAAQMD is not sufficient evidence to reach the conclusion that a 10ppm ammonia slip will not contribute to PM levels in the BAAQMD.

**FIGURE 1**  
**Annual Percentage PM<sub>2.5</sub> Contributions from Various Source Categories**



The values shown are the mass from individual source categories as a percentage of the total estimated mass. Thus, the percentages sum to 100% for each site.

Staffs testimony accounts for the fact that ammonia emissions are not emitted in a small box that we can analyze in a vacuum. Staff’s testimony is in fact supported by substantial evidence that is contained in the record on conditions in the project area related to ammonia concentrations.

Further the PMPD states,

“There are recent examples of Commission decisions in which the Commission rejected the Staff’s arguments that a 5 ppm ammonia slip level should be required, and sustained the opinions of the Applicant, Bay Area AQMD and San Joaquin Valley APCD. In the case of the Turlock Irrigation District Walnut Energy Center, the Commission was not persuaded by Staff’s position and made findings that, based on the evidence, reducing the ammonia slip level to 5 ppm would not reduce the formation of secondary particulates in the San Joaquin Valley. (Walnut Energy Center Decision, pp. 101,103 findings 7-9.)” (PMPD p. 147,148)

As CARE pointed out in its Reply brief the applicant’s last two projects in the BAAQMD were limited to 5ppm the Russell City Project and the Metcalf

Energy Center a project that will add to nitrogen deposition in sensitive habitat in the project area. If the committee wishes to use a previous decision to justify an ammonia slip level the Committee should take judicial notice of the Commission decision in the Contra Costa 8 Project which unlike the Walnut energy Center is located in the BAAQMD. The Contra Costa 8 Decision limited ammonia slip to 5ppm to prevent secondary formation of PM 2.5 in the BAAQMD.

**“The project’s ammonia emissions have a potential to contribute to the ammonium nitrate emissions, which may worsen the violation of the PM10 standard. Assuming a 30 percent NOx to nitrate conversion rate and a linear extrapolation of the project’s PM10 modeling results, the NOx to nitrate impact from the project can be at a maximum 2 µg/m3. Because the area is nonattainment for the state 24-hr PM10 standard, the ammonium nitrate contribution, although small, is significant without providing emission reductions as offsets.”**

**(PMPD Contra Costa 9, page 10, 00-AFC-01)**

The PMPD reasons incorrectly on page 209 “In addition, the LECEF 2 will reduce overall nitrogen in the vicinity of serpentine habitat with the purchase of additional Emission Reduction Credits (ERCs) as recommended by Staff. In fact, Applicant has identified a new set of ERC certificates which are all NOx-based. The surrender of these certificates is sufficient to reduce impacts to serpentine plants to less than significant levels. Because 27.945 tons per year of NOx offsets are required to reduce the cumulative impacts in biological resources to less than significant levels, we have required the purchase of these nitrogen-based ERC’s as condition of certification **BIO-22**. (6/30/05 RT 32-34.)

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The NOx emission increases from the LECEF phase 2 are not the primary source of the majority of incremental nitrogen deposition. There will be an 11.7% increase in nitrogen deposition from Phase 2 of the LECEF. (Exhibit 2 page 11) Seventy-five percent of that increase will be the result of an increase in ammonia emissions from Phase 2. No additional mitigation has been proposed for the

increased ammonia emissions from Phase 2. The other 25% of incremental nitrogen deposition from Phase 2 of the LECEF will be offset by Emission reduction credits from the Potrero Power plant created in 1985. The PMPD identifies that the significant impact from NOx emissions will be mitigated by 27.945 tons of NOx ERC's but that is only 25% of the impact the other 75% will come from unmitigated ammonia emissions will not be mitigated. This fact is undisputed in the record. If the NOx emissions that represent 25% of the incremental nitrogen deposition from phase two are significant and must be mitigated then the 75% incremental deposition from the ammonia emissions must be mitigated. The City of San Jose agrees and will be requiring additional mitigation for nitrogen deposition as part of the rezoning for the LECEF. Without mitigation for the additional nitrogen deposition from Phase 2 the PMPD is in violation of CEQA and the Decision is an Abuse of Discretion.

### **Conclusion**

The projects CO limit should be lowered to 4ppm to comply with The BAAQMD and the CEC's BACT determinations in the PICO Power Plant and satisfy Section 25552 which requires the commission to impose BACT upon conversion to combined cycle for the LECEF 2.

Ammonia emissions should be limited to 5ppm since the only scientific study in the record (Exhibit 2 p. 4-5) supports staff's testimony that the ammonia emissions have the potential to form secondary PM 2.5 because the project area and the Bay Area are not uniformly ammonia rich. Ammonia emissions which are 75% of the LECEF phase 2 incremental nitrogen deposition impacts should be mitigated because Phase 2 ammonia emissions are not mitigated.

Staff's bicycle path repair condition should be modified to reflect the true cost of bicycle path repair as estimated by CARE's expert witness to be \$50,000 dollars. This is the only expert testimony in the record and reflects the escalating costs of construction. CARE thanks the committee for their efforts in pressuring the applicant to repair the damage to the path. Without the Committee's assistance CARE believes the bicycle path would never be repaired.

Therefore the Applicant should not receive his license until the path is repaired or the motivation to complete these repairs will no longer exist.

Respectfully submitted,



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#### **Verification**

I am an officer of the Intervening 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 this 28<sup>th</sup> day of October 2005, at Soquel, California.



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