

BAY AREA AIRQUALITY MANAGEMENT DISTRICT



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CK P. Broadbent EXECUTIVE OFFICER/APCO June 29, 2005



Gary Rubenstein Sierra Research 1801 J Street

Sacramento CA 95814

Subject: Los Esteros Critical Energy Facility Revised Preliminary Determination of Compliance Application 8859

Dear Mr. Rubenstein:

Thank you for your comments on the revised Preliminary Determination of Compliance (PDOC) for the conversion of the Los Esteros Critical Energy Facility (LECEF) from simple-cycle to combined-cycle operation. We have carefully considered those comments and have the following responses. This is also to inform you that we have issued the Final Determination of Compliance (FDOC) for the facility. A copy of the FDOC is enclosed.

Fuel Sulfur Content Monitoring:

Comment: Condition 29 would require fuel sulfur monitoring as required under 40 CFR 60, Subpart GG, in accordance with a custom schedule approved by EPA on August 14, 1987. However, EPA recently revised Subpart GG to eliminate most sulfur content testing requirements for natural gas fuel (69 FR 41345, July 8, 2004). The revisions provide that sulfur content of the fuel need not be monitored if a demonstration is made that the fuel meets the definition of natural gas that is now included in the subpart under section 60.331(u). The revisions further provide that a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel may be used to demonstrate that the total sulfur content of the fuel is below 20.0 grains per 100 scf. Therefore, we request that condition 29 be modified such that fuel sulfur content testing is required on a semi-annual basis only.

Response: Permit condition 29 was imposed because the owner/operator of the facility had chosen to use an alternative monitoring method to comply with Subpart GG. Subsequently, Subpart GG has been revised and the owner/operator can comply with the monitoring requirements contained in 40 CFR 60.334(h)(3)(i). Condition 29 is therefore redundant and will be deleted. Note that this change will require a significant change to the Title V permit and therefore the monitoring required by the condition 29 must be conducted by the owner/operator until the permit has been revised.

Emission Offsets:

Comment: LECEF needs to provide 27.945 tons/yr of valid NOx emission reduction credits prior to the issuance of the Authority to Construct. To provide mitigation for potential nitrogen deposition impacts from the project as well as for ozone impacts as required under District regulations, LECEF will provide the required NOx offsets using NOx ERCs rather than a combination of NOx and POC

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ERCs as was described in the revised PDOC. Condition 35 should be revised to reflect this information.

Response: Condition 35 on page 36 of the revised PDOC was incorrect. It did not require the submission of any NOx emission offsets. As requested, condition 35 will be revised to reflect the submission of only NOx emission reduction credits to offset the NOx emission increases for the modified LECEF. Conditions 35 in the FDOC will read as follows:

35. <u>Emission Offsets</u>: The owner/operator shall provide 7.5 tons of valid POC emission reduction credits and 27.945 tons of valid NOx emission reduction credits prior to the issuance of the Authority to Construct. The owner/operator shall deliver the ERC certificates to the District Engineering Division at least ten days prior to the issuance of the authority to construct. (Basis: Offsets)

In addition, the offset package specified in Table 9 of the FDOC has been revised to reflect the banking certificates that have been designated by Calpine for the combined-cycle LECEF.

Commissioning Period Emission Rate Limits:

Comment: Condition 10 limits emissions during the commissioning period. While the NOx and CO emissions shown in the condition correctly reflect the temporarily elevated emission rates of those pollutants that are expected to occur during commissioning activities after control equipment is installed, we believe the POC emissions will continue to be elevated after the oxidation catalyst is installed. Therefore we request that the POC limit with controls be changed to 288 lb/day, the same as the POC limit without controls.

Response: Condition 10 in the revised PDOC contains several typographical errors. It will be corrected as shown below to correspond to the emission rates requested by LECEF in a letter dated July 8, 2004. Because the increases in short-term PM_{10} and POC emission rates shown will not result in any increase in annual emissions and because the combined-cycle LECEF does not trigger a PSD impact analysis, the changes do not trigger any additional regulations or review and are administrative in nature. Therefore, the FDOC will contain the following corrected version of condition 10:

10. The owner/operator shall not operate the facility such that the pollutant mass emissions from each turbine (S-1, S-2, S-3 and S-4 Gas Turbines) and corresponding HRSG (S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators) exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the S-1, S-2, S-3 and S-4 Gas Turbines.

NO_x (as NO₂) CO POC (as CH₄) PM₁₀ SO₂ (basis: cumulative increase) Without Controls 1464 lb/day 102 lb/hr 1056 lb/day 88 lb/hr 288 lb/day 60 <u>96</u> lb/day 53.6 <u>18.9</u> lb/day With Controls 1464 lb/day 61 lb/hr 984 lb/day 41 lb/hr 114 288 lb/day 60 96 lb/day 53.6 18.9 lb/day

Heat Input Rate Limits:

Comment: Condition 24 limits daily heat input for each gas turbine without duct firing to 11,342 MM BTU/day. Since the hourly heat input limit for Phase 2 of the project has been increased to 500 MM BTU/hr, the daily limit should be 24 x 500, or 12,000 MM BTU/day. This value is consistent with the analyses submitted to the District.

Response: Condition 24 in the FDOC shows the correct daily heat input rate limit of 12,000 MM BTU/day per gas turbine.

If you have any questions, please contact Dennis Jang, Senior Air Quality Engineer at (415) 749-4707.

Very truly yours,

-oe Jack P. Broadbeat Executive Officer/APCO

JPB:dtj

enclosure



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Jack P. Broadbent EXECUTIVE OFFICER/APCO

June 29, 2005

Paul Richins Environmental Office Manager California Energy Commission 1516 Ninth Street Sacramento CA 95814-5512

Subject: Los Esteros Critical Energy Facility Revised Preliminary Determination of Compliance Application 8859

Dear Mr. Richins:

Thank you for your comments on the revised Preliminary Determination of Compliance (PDOC) for the conversion of the Los Esteros Critical Energy Facility (LECEF) from simple-cycle to combined-cycle operation. We have carefully considered those comments and have the following responses. This is also to inform you that we have issued the Final Determination of Compliance (FDOC) for the facility. A copy of the FDOC is enclosed.

CO Best Available Control Technology:

Comment: The revised PDOC concludes that BACT for the LECEF Combined Cycle Facility is 9.0 ppm (3-hr avg). Staff notes that this limit is much higher than the recent BACT determination of 4 ppm (3-hr avg) for the nearby Pico Power Project, which used identical turbines and also has a 2.0 ppm NOx limit. Further, this BACT level is in excess of the 6.0 ppm (3-hr avg) BACT specified for combined cycle turbines in the 1999 ARB Guidance for Power Plant Siting.

Response: As stated in the revised PDOC, the CO BACT determination of 4.0 ppmv for the Pico Power Project was based in part upon the Campbell Soup Facility in Sacramento. However, this facility is subject to a higher NOx limit of 3.0 ppmv. We are not aware of any facility that has achieved in practice a CO emission rate of 4.0 ppm while meeting a NOx limit of 2.0 ppm. While the Pico Power Project was permitted at 2.0 ppm NOx and 4.0 ppm CO, it has not yet demonstrated consistent compliance with these limits. In order to be considered as an achieved-in-practice BACT determination for the LECEF project, the Pico Power Project must have demonstrated at least six months of continuous compliance prior to the date that the LECEF application is deemed complete.

Because no CO emission level has been achieved in practice while meeting a NOx limit of 2.0 ppmv, the District must determine CO BACT based upon costeffectiveness and technical feasibility. The District's current cost-effectiveness criteria for CO is zero dollars per ton of CO reduced, which means that the District has determined that additional reduction of CO does not justify any additional cost. This application involves an existing source, with existing control equipment. BACT therefore requires a CO emission limit that is technologically feasible for the facility to meet on a consistent basis, without having to incur any additional costs for additional control equipment.

NOx Excursion Allowance:

Comment: Part 19g of the revised PDOC contains an allowance for short-term NOx excursions up to 320 hours per year that did not appear in the original PDOC published in September 2004. There is no justification provided in the revised PDOC for this allowance, and it is not immediately clear why this was included in the revised PDOC.

Response: The NOx excursion allowance was added to part 19g of the permit conditions because the combined-cycle LECEF will, at certain times, operate in a load-following mode and operate under automatic generation control where load changes are controlled by the California Independent System Operator (CAISO). These operating scenarios were the basis of the NOx excursion language in the Pico Power Project permit and are the basis for their inclusion in the LECEF permit. A more detailed discussion of the expected operating modes for the combined-cycle LECEF has been added to the FDOC. In addition, EPA has reviewed the excursion language and has indicated that it has no objection.

Ammonia Slip Level:

Comment: Part 19b of the revised PDOC limits ammonia emissions to 10 ppmvd (@ 15% O₂ (3-hr avg), except during periods of start-up or shutdown. In order to minimize the formation of secondary PM to the extent possible, the District should consider requiring an ammonia emissions limit of 5 ppmvd. Such a level is technologically and economically feasible and is recommended in the 1999 ARB Guidance for Power Plant Siting.

Response: Based upon the atmospheric conditions in the Bay Area air basin, the District concluded that ammonia emissions from the facility will not contribute to the formation of secondary particulate matter because the chemical reaction that forms ammonium nitrate – the type of secondary particulate matter of concern – is limited by the amount of nitric acid in the atmosphere, not by the amount of ammonia. As a result, additional ammonia emissions will not cause additional ammonium nitrate to be generated. Furthermore, the District is not aware of any authority it has under its regulations to limit ammonia emissions beyond levels proposed by the applicant. However, because the District's health risk assessment is based on the proposed ammonia emissions of 10 ppmv, the District has revised the basis of part 19b of the permit conditions from "BACT" to "BAAOMD Toxics Risk Management Policy".

The following minor issues have also been addressed in the FDOC.

POC Emission Reduction Credit Requirement:

Table 8 on page 22 of the FDOC shows the correct current facility POC emission limit of 20.8 tons per year. Accordingly, the quantity of POC offsets required has been changed to 7.5 tons per year in Table 8. In addition, part 35 of the permit conditions now specifies that 7.5 tons per year of POC offsets are required.

NOx Emission Reduction Credit Requirement:

The emission offset package described in Table 9 on page 23 of the FDOC has been revised to show the current intent of Calpine to submit all NOx emission reduction credits to offset the NOx emission increases from the modified LECEF. In addition, part 35 of the permit conditions has been amended to reflect the requirement to submit 27.945 tons per year of valid NOx emission reduction credits.

CO Mass Emission Calculations:

Per the request of the CEC, the CO emission factor calculations on page 7 of the FDOC have been revised to eliminate a rounding error that affected mass emission limits in part 22 of the permit conditions.

Emission Reduction Credits Identified:

Banking certificate number 822 in the amount of 1.029 tons per year of NOx has been removed from Table 9 on page 23 of the FDOC since it will not be utilized to offset any emission increases for the proposed combined-cycle LECEF.

If you have any questions, please contact Dennis Jang, Senior Air Quality Engineer at (415) 749-4707.

Very truly yours,

Jack P. Broadben Executive Officer/APCO

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Jack P. Broadbent EXECUTIVE OFFICER/APCO Michael E. Boyd President, CARE 5439 Soquel Drive Soquel CA 95073

Subject: Los Esteros Critical Energy Facility Revised Preliminary Determination of Compliance Application 8859

Dear Mr. Boyd:

Thank you for your comments on the revised Preliminary Determination of Compliance (PDOC) for the conversion of the Los Esteros Critical Energy Facility (LECEF) from simple-cycle to combined-cycle operation. We have carefully considered those comments and have the following responses. This is also to inform you that we have issued the Final Determination of Compliance (FDOC) for the facility. A copy of the FDOC is enclosed.

Comment #1: The District has failed to legally remove the sunset provision from the facility's Title V operating permit.

Response: Your comment on the removal of the sunset provision from the facility's Title V permit is untimely and not relevant to the current permitting action, which involves the issuance of a FDOC for combined-cycle operation, not the facility's current Title V major facility review permit. To the extent that you disagree with the removal of the sunset provision from the Title V permit, your concerns should have been raised in connection with that permitting action, which took place on June 10, 2004, nearly a full year ago. Your concerns are not relevant to the District's determination to issue this FDOC.

Furthermore, the substance of your objection – that the sunset provision was improperly removed from the Title V permit – is misplaced. The sunset provision was removed from the Title V permit through an "administrative amendment" because the condition was not federally enforceable, pursuant to District Regulation 2-6-201. The provision was not federally enforceable because it is not, and was not imposed as, a requirement of federal law, and was not enforceable by US EPA. There is nothing in EPA's December 16, 2004, letter to the contrary.

In addition, the issue implicated by the sunset provision, the use of BACT when converting to combined-cycle operation, is now moot. The District is requiring in this FDOC that the facility use BACT for combined-cycle operation.

Finally, although you did not raise the issue in your comments relating to the Title V permit, the District also takes this opportunity to clarify why it removed the sunset provision from the most recent Permit to Operate for the simple-cycle operation. The sunset provision was included in the initial District permits for that project – the Authority to Construct and the initial Permit to Operate – as a voluntary permit

June 29, 2005

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condition at the request of the applicant and the CEC. It was not included pursuant to any legal obligation applicable to the District. (The provision of the Resources Code you refer to in your comment, Section 25552, by its terms, applies to the CEC and not the District.) In a subsequent revision to the Permit to Operate the applicant requested that the provision be removed and the CEC concurred, and so the District removed the condition, as there is no legal requirement that it be included. There were no objections or challenges to that decision. The removal of the condition from the Permit to Operate did alter the fact that the condition was a binding commitment in the Authority to Construct for the facility, however.

Comment #2: The District failed to comply with the BAAQMD Regulations 2-3-403, 2-3-404, and 2-3-405 in connection with the CEC's recertification of the simple-cycle facility.

Response: The CEC's recertification of LECEF as a permanent facility was a CEC licensing action, not a District permitting action. The District permitting requirements you refer to therefore did not apply to the recertification, and the District had no legal obligations in connection with that CEC action. Furthermore, even if the District did have any legal duties with respect to the CEC's recertification, the time to comment on them would have been when the recertification occurred (in February of 2005), and any comments now would be untimely.

Comment #3: SCONOx is not included in the BACT/LAER Analysis. In a March 24, 2000 letter to local air pollution control districts, EPA Region 9 stated that the SCONOx Catalytic Adsorption System should be included in any BACT/LAER analysis for combined-cycle gas turbine power plant projects.

Response: The revised PDOC for the modified LECEF included a BACT analysis that was conducted in accordance with current District BACT policy and implementation guidelines. These guidelines specify BACT for a given pollutant in terms of an emission rate and not in terms of a particular emission technology. Therefore, the applicant can use any feasible technology to achieve compliance with a BACT emission level. A consideration of SCONOx and the potential collateral impacts of a control technology is only required for BACT/LAER analyses conducted under PSD. Because the existing and modified LECEF does not trigger PSD, the consideration of the potential impacts of SCONOx versus SCR is not required. Furthermore, even if an analysis of alternative control technologies were required, SCONOx would not be a feasible alternative for this facility since is has not been successfully demonstrated on a facility of this size.

Comment #4: NOx emissions should be 2 ppm with no allowance for excursions. The recently approved Tesla Power Plant and the East Altamont Energy Center have both been permitted at 2 ppm with no excursion allowance.

Response: As discussed in the revised PDOC, a NOx emission rate of 2.0 ppmv has not been achieved in practice under all operating conditions for the category of source proposed for the modified LECEF. However, a NOx emission rate of 2.0 ppmv with an excursion allowance is technologically feasible and cost-effective and therefore satisfies BACT. The Tesla Power Plant and East Altamont Energy Centers will employ nominal 170 MW gas turbines equipped with dry low-NOx combustors that are expected to achieve NOx emission rates of less than 10 ppmv prior to abatement. The LECEF turbine is a nominal 50 MW GE LM6000 model equipped with water injection that achieves a NOx emission rate of approximately 20 to 25 ppmv. Therefore, the BACT determination made for those facilities does not apply to the LECEF.

Comment #5: BACT for CO is 4 ppmvd. The District should require this project to comply with current BACT for CO. The Sithe Mystic Development Project at 39 Rover Street in Everett MA is a combined-cycle plant that is now operating at a 2 ppm limit for CO emissions in conjunction with a 2 ppm NOx limit not to mention a 2 ppm ammonia slip limit.

Response: As discussed in the revised PDOC and enclosed FDOC, a CO emission rate of 4.0 ppmv has not been achieved in practice under all operating conditions for the category of source proposed for the modified LECEF when a NOx emission limit of 2.0 ppmv is also in effect. Because CO emissions tend to increase as NOx emissions are decreased at gas turbines equipped with water injection, an allowance has been made for higher CO emissions. Because no CO emission level has been achieved in practice for a NOx limit of 2.0 ppmv, the District must determine CO BACT based upon cost-effectiveness and technical feasibility. The District's current cost-effectiveness criteria for CO is zero dollars per ton of CO reduced, which means that the District has determined that additional reduction of CO does not justify any additional cost. This application involves an existing source, with existing control equipment. BACT therefore requires a CO emission limit that is technologically feasible for the facility to meet on a consistent basis, without having to incur any additional costs for additional control equipment. Please see the discussion of BACT for CO in the FDOC for further detail.

The Sithe Mystic facility located in Everett, Massachusetts is equipped with four Mitsubishi 501G gas turbines with a nominal output of 250 MW each. They are equipped with dry Low-NOx combustors and are abated by SCR and oxidation catalysts. These units are subject to a NOx emission limit of 2 ppmv and CO emission limit of 2 ppmv. Because these turbines are approximately five times larger than the turbines employed at LECEF, they are not considered comparable for the purposes of an achieved-in-practice BACT determination.

Comment #6: Ammonia Emissions. Because the project area is in violation of the federal PM-2.5 standards and the project substitutes POC emission reductions for NOx emission reduction credits, the potential for secondary formation of PM-2.5 should require this project to adopt a 5 ppm ammonia slip limit.

Response: The San Francisco Bay Area is not nonattainment for the federal PM2.5 ambient air quality standard. The District is unclassified for this standard. The District concluded that ammonia emissions from the facility will not contribute to the formation of secondary particulate matter because the chemical reaction that forms ammonium nitrate – the type of secondary particulate matter of concern – is limited by the amount of nitric acid in the atmosphere, not by the amount of ammonia. As a result, additional ammonia emissions will not cause additional

ammonium nitrate to be generated. This conclusion was based on atmospheric conditions in the Bay Area air basin. District Regulation 2-2-302.2 allows the use of POC emission reduction credits to offset emission increases of NOx. This is because POC emissions have a greater potential to form ozone than NOx, which can initially "scavenge" ozone to form NO₂ and O₂.

Furthermore, the District is not aware of any authority it has under its regulations to limit ammonia emissions beyond levels proposed by the applicant. However, because the District's health risk assessment is based on the proposed ammonia emissions of 10 ppmv, the District has revised the basis of part 19b of the permit conditions from "BACT" to "BAAQMD Toxics Risk Management Policy".

If you have any questions, please contact Dennis Jang, Senior Air Quality Engineer at (415) 749-4707.

Very truly yours,

Jack P. Broadber Executive Officer/A

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EXECUTIVE OFFICER/APCO June 29, 2005

Gerardo C. Rios Chief, Permits Office, Air Management Division United States Environmental Protection Agency 75 Hawthome Street San Francisco, CA 94105

Subject: Los Esteros Critical Energy Facility Revised Preliminary Determination of Compliance Application 8859

Dear Mr. Rios:

This is in response to your comment letter, dated April 29, 2004, concerning the revised PDOC for the Los Esteros Critical Energy Facility. This is also to inform you that we have issued the Final Determination of Compliance (FDOC) for the facility. A copy of the FDOC is enclosed.

We have the following responses to your comments:

CO BACT

Comment: EPA expressed concern that the District's BACT analysis did not include information from other facilities already operating under more stringent control requirements. EPA provided one example: The Las Vegas Cogeneration facility located in Clark County, Nevada, which commenced operation of similar equipment in 2003. According to the comment letter, the facility is subject to a 2.0 ppm NOx limit and a 2.0 ppm CO limit and the unit has been meeting the NOx limit since the third quarter of 2004, and has failed to meet the CO limit consistently.

Response: We have reviewed the NOx CEM data from the Las Vegas Cogeneration facility and determined that it is not consistently meeting the 2 ppmv NOx limit. As a result, this facility is not comparable to LECEF for purposes of an achieved-in-practice BACT determination for CO since the CO emissions level must be achieved while meeting a NOx limit of 2 ppmv. Please see the NOx BACT discussion in the enclosed FDOC for further detail on this matter.

Moreover, 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. The Valero Cogeneration Unit employs a LM6000 Sprint turbine with water injection and is subject to a CO limit of 6.0 ppmv. Based upon an analysis of 6 months of CEM data, the peak CO emission level was 4.86 ppmv. However, this was achieved within the context of a higher allowable NOx emission limit of 2.5 ppmv. It is expected that the peak CO emissions from the Valero Cogeneration Unit would increase and could exceed 6 ppmv if the NOx limit was reduced to 2.0 ppmv.

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Finally, the Pico Power Project uses similar equipment, and is permitted at a NOx limit of 2.0 ppm and a CO limit of 6.0 ppm. This project has only just recently come on-line, however, and there is insufficient data regarding its CO emissions performance to be able to make a determination that it has in fact achieved that limit in practice. This project cannot therefore be used to support an achieved-in-practice BACT determination.

Because no CO emission level has been achieved in practice for a NOx limit of 2.0 ppmv, the District must determine CO BACT based upon cost-effectiveness and technical feasibility. The District's current cost-effectiveness criteria for CO is zero dollars per ton of CO reduced, which means that the District has determined that additional reduction of CO does not justify any additional cost. This application involves an existing source, with existing control equipment. BACT therefore requires a CO emission limit that is technologically feasible for the facility to meet on a consistent basis, without having to incur any additional costs for additional control equipment.

Start-up/Shutdown Conditions

Comment: EPA expressed concern over the time limits on turbine start-up and shutdown periods. EPA noted that the permit establishes presumptive time limits on start-ups and shutdowns, but allows the time limits to be changed based on good engineering practice as approved in advance by the District. EPA commented that under the permit as proposed, there would be no firm limit on when BACT would apply and emissions could be increased.

Response: BACT as applied to this facility exempts startup and shutdown operations from the strict emission limits applicable during normal, steady-state operations. This is the result of the fact that during startups and shutdowns, the turbines simply cannot, as a matter of engineering, meet those strict limitations. Imposing such strict limitations without providing an exemption for startup and shutdown periods has not been achieved in practice, and is not technologically feasible and cost effective. EPA has not provided any evidence to the contrary, and the District is not aware of any. As a result, BACT as applied to this facility must provide these startup and shutdown exemptions. The startup and shutdown exemptions are therefore not situations where BACT does not apply, as EPA's comment suggests, but are in fact situations that are created by and required by BACT in this situation.

As for the duration of the startup and shutdown exemptions, BACT requires that they be defined by the time it reasonably takes to start up or shut down the turbines, consistent with good engineering practices, because that is the time period during which the facility cannot comply with the more stringent steady-state emissions limitations. The District believes that under good engineering practices, a startup should take 240 minutes or less and a shutdown should take 30 minutes or less, and so it established those time periods as presumptive numerical time limits for the startup and shutdown exemptions. Having defined numerical time limits is important to allow the facility, the District, and the public to readily determine whether the facility is in compliance with its permit requirements. But there is no independent significance to those numbers, apart from being the District's current best estimate of how long startups and shutdowns should take consistent with good engineering practice. If good engineering practice in fact dictates that startups or shutdowns should reasonably take some different length of time to complete, BACT requires that the permit allow the facility that time period for these activities. A permit condition that adheres blindly to the presumptive numerical limits, instead of being ultimately tied to good engineering practice, would not be valid under the District's BACT regulations. It was for this reason that the District proposed the permit language that is the subject of EPA's comment.

In response to EPA's comment, the District is revising the permit language at issue to make clear that the startup and shutdown exemption periods are defined by good engineering practice, and not any particular number of minutes. The District continues to believe that it is useful for the permit to set forth a presumptive numerical limit, based on good engineering practice, in order to facilitate determining whether a particular startup or shutdown has satisfied the exemption. The District is therefore retaining the 240- and 30-minute numerical limits, but it is amending the language to make clear that these are simply presumptive limits and based on good engineering practice, if approved in writing by the APCO. Accordingly, the District is revising parts 20 and 21 to read as follows:

20. <u>Turbine Startup</u>: The owner/operator shall operate the gas turbines so that the duration of a startup is kept to a minimum, consistent with good engineering practice. The start-up period begins with the turbine's initial firing and continues until the unit is in compliance with all applicable emission concentration limits. For purposes of this Part, a start-up period of 240 minutes or less shall be considered kept to a minimum consistent with good engineering practice. Should it be determined that good engineering practice requires a different time period for a start-up, the owner/operator may operate the gas turbines such that startups do not exceed that time period, as approved in writing by the APCO. (Basis: BACT)

21. <u>Turbine Shutdown</u>: The owner/operator shall operate the gas turbines so that the duration of a shutdown is kept to a minimum, consistent with good engineering practice. Shutdown begins with the initiation of the turbine shutdown sequence and ends with the cessation of turbine firing. For purposes of this Part, a shutdown period of 30 minutes or less shall be considered kept to a minimum consistent with good engineering practice. Should it be determined that good engineering practice requires a different time period for a shutdown, the owner/operator may operate the gas turbines such that shutdowns do not exceed that time period, as approved in writing by the APCO. (Basis: BACT)

The District appreciates EPA's interest in the permit and welcomes future opportunities to work together on these issues.

Please contact Steve Hill, Air Quality Engineering Manager at (415) 749-4673 if you have any questions.

Sincerely,

Jack P. Broadt

Executive Officer/APCO

cc:

Mike Tollstrup, California Air Resources Board Robert Word, California Energy Commission Gabriel Taylor, California Energy Commission Rick Tetzloff, Regional Engineering Calpine Corporation

ELLISON, SCHNEIDER & HARRIS L.L.P. ATTORNEYS

Date: July 6, 2005

To: CEC Docket Office

From: Greggory L. Wheatland (Counsel for Applicant)

Subject: 03-AFC-2 Los Esteros FDOC

ENCLOSED PLEASE FIND: Copies of all of the response letters sent out by the Bay Area Air Quality Management District in conjunction with the FDOC

□ FOR YOUR INFORMATION

IN ACCORDANCE WITH YOUR REQUEST

PLEASE READ, SIGN AND RETURN

□ PLEASE COMMENT

□ FOR THE RECORD

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