



CALPINE

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September 29, 2006

Ms. Jeri Scott
Compliance Project Manager
Systems Assessment & Facility Siting Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

DOCKET 98-AFC-1c
DATE SEP 29 2006
RECD. OCT 3 2006

**RE: PETITION TO AMEND LOS MEDANOS ENERGY CENTER'S
CONDITIONS OF CERTIFICATION
Docket Number 98-AFC-1**

Dear Ms. Scott:

Pursuant to Section 1769 of the California Energy Commission (CEC) Siting Regulations, Los Medanos Energy Center (LMEC), hereby submits the attached Petition to amend LMEC's Conditions of Certification.

Please contact Dave Williams at (925) 479-6744 or me at (925) 252-2003 if you have any questions regarding this submittal.

Sincerely,

for

Chris German
Plant Manager
Los Medanos Energy Center

CM LOG #
06-0851

PETITION FOR INSIGNIFICANT AMENDMENTS TO OPERATIONS CONDITIONS OF CERTIFICATION

As required by Section 1769 of the CEC Siting Regulations, LECEF hereby submits the following discussion to amend the Air Quality Conditions of Certification of LMEC's Application for Certification 98-AFC-1. LMEC proposes reducing the annual PM10 limit from the facility and obtaining a refund from the Bay Area Air Quality Management District (BAAQMD) for PM10 offsets originally surrendered during site permitting equal to the reduction in the annual limit. The 131.6 tons of offsets initially surrendered for the project were comprised of 98.13 tons of PM10 emissions and 133.88 tons of SO2 emissions. The SO2 emissions were used to offset 33.47 tons of PM10 emissions using a four to one inter-pollutant ratio. Calpine is requesting that BAAQMD refund 62.4 (131.6 – 69.2) tons of PM10 offsets.

Pursuant to CCR Title 20, Section 1769 (a)(1)(A) and (B), a description of the proposed modifications, including new language for affected conditions and the necessity for the modifications is required.

Because the combustion turbines emit much less PM10 than anticipated during permitting, LMEC is proposing to reduce the 1-hour, 24-hour, and annual emissions limits. LMEC has submitted an application to the Bay Area Air Quality Management District (BAAQMD) requesting that emissions offsets be refunded equivalent to the reduction in annual emissions.

The proposed lb/MMBtu emission limits are based on a limit of 9 pounds per hour and a maximum permitted heat input of 2225.1 MMBtu per hour.

The proposed daily emission limit is based on 24 hour operation of both CT/HRSG trains at permitted hourly heat input and a PM10 emission factor of 0.0040 lb/MMBtu and 24 hour operation of the auxiliary boiler at permitted hourly heat input and a PM10 emission factor of 0.005 lb/MMBtu.

The proposed annual emission limit is based on a combustion train emission factor of 0.0040 lb/MMBtu and the permitted combined annual heat input of 34,010,400 MMBtu and the permitted auxiliary boiler emissions of 1.2 tpy.

The modifications proposed to the condition of certification are as follows:

- AQ-21(h)** Particulate matter (PM10) mass emissions at P-1 and P-2 each shall not exceed ~~16.3~~ 9 pounds per hour or ~~0.0107~~ 0.0040 lb/MMBtu of natural gas fired.
- AQ-32** Total combined emissions from the Gas Turbines, HRSGs, and Auxiliary Boiler (S-1, S-2, S-3, S-4, and S-5), including emissions generated during Gas Turbine Start-ups, Gas Turbine Shutdowns, Auxiliary Boiler Start-

ups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any calendar day:

- a. 1347 pounds of NO_x (as NO₂) per day
- b. 6835 pounds of CO per day
- c. 274 pounds of POC (as CH₄) per day
- d. ~~780~~ 465 pounds of PM₁₀ per day
- e. 272.4 pounds of SO₂ per day

AQ-33

Cumulative emissions from the Gas Turbines, HRSGs, and Auxiliary Boiler (S-1, S-2, S-3, S-4, and S-5), including emissions generated during Gas Turbine Start-ups, Gas Turbine Shutdowns, Auxiliary Boiler Start-ups, and Auxiliary Boiler Shutdowns, shall not exceed the following limits during any consecutive twelve-month period:

- a. 176.2 tons of NO_x (as NO₂) per year
- b. 506.4 tons of CO per year
- c. 34.1 tons of POC (as CH₄) per year
- d. ~~136.2~~ 69.2 tons of PM₁₀ per year
- e. 39.86 tons of SO₂ per year

Pursuant to CCR Title 20, Section 1769 (C), a discussion is required on if the modification is based on information that was known by the petitioner during the certification proceeding, and an explanation of why the issue was not raised at that time.

The change being requested to the Air Quality conditions are based on information obtained from facility operations. At the time of certification, PM₁₀ emissions from this type of unit were unknown and best engineering judgment was used to estimate the emissions.

Pursuant to CCR Title 20, Section 1769 (D), a discussion is required on whether the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, and explanation of why the change should be permitted.

The proposed change to the Air Quality conditions is based on information obtained after the completion of the certification process. Since the change is administrative and actual facility emissions will be unaffected, Calpine believes the proposed change does not undermine the assumptions, rationale, findings or other bases of the final decision.

Pursuant to CCR Title 20, Section 1769 (E), an analysis of the impacts the modifications may have on the environment and proposed measures to mitigate any significant adverse impacts is required.

The proposed change to the condition of certification does not result in any significant adverse environmental impact.

Pursuant to CCR Title 20, Section 1769 (F), a discussion of the impact of the modification on the facility’s ability to comply with applicable laws, ordinances, regulations, and standards is required.

The proposed amendment will have no impact on the facility’s ability to comply with applicable laws, ordinances, regulations, and standards. LMEC PM10 emissions during the six years of operation have been much less than what was estimated when the facility was permitted. Table 1 summarizes the source test results from each year of operation.

Table 1 – Source Test Results (lb/hr)

<u>Year</u>	<u>CT1</u>	<u>CT2</u>
2001	4.31	2.81
2002	1.87	1.25
2003	1.22	2.24
2004	3.58	3.62
2005	8.10	3.11
2006	5.46	3.74

Based on the source test data as well as the emission limits for other similar recently permitted facilities, LMEC will have no problems meeting the proposed PM10 emission limits.

Pursuant to CCR Title 20, Section 1769 (G), a discussion of how the modifications affect the public is required.

Calpine asserts that the proposed modification to the condition of certification will not adversely affect the public.

Pursuant to CCR Title 20, Section 1769 (H), a list of property owners potentially affected by the modification is required.

The proposed amendment is administrative in nature; therefore no property owners will be affected by the modification.

Pursuant to CCR Title 20, Section 1769 (I), a discussion of the potential effect on nearby property owners, the public and the parties in the application proceedings is required.

The proposed amendment will have no impact on property owners, the public, or any other parties.