

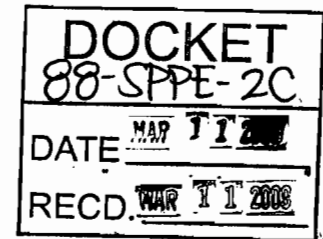
CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov



March 11, 2009

Mr. Donnie Williams, Plant Manager
Mojave Cogeneration Company, L.P.
P.O. Box 1090
Boron, CA 93596



**RE: Mojave Cogeneration Company Project (88-SPPE-2C)
Annual Compliance Reports**

Dear Mr. Williams:

The Mojave Small Power Plant Exemption (SPPE), granted on April 12, 1989, stipulates that Annual Compliance Reports (ACRs) are to be submitted to the Compliance Project Manager (CPM) annually after the SPPE is granted and shall include the following information:

- A summary of the current project operating status; and
- A listing of compliance plan requirements completed or in progress.

Mojave Cogeneration Company, L.P. has not submitted an ACR since 1998. These reports are due in February of each year.

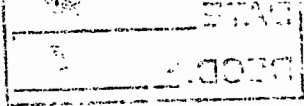
After a series of communications between you and Dale Rundquist (CPM) since September, 2008, the California Energy Commission (CEC) still has not received a current ACR from Mojave Cogeneration Company Project. If you need further guidance or information to finish the report, please contact me at (916) 653-0062.

If you do not need further guidance or information, please submit the current ACR to the CEC by March 26, 2009.

Enclosed you will find the communication log between you and Dale Rundquist and the Conditions of Exemption required in the ACR. I have highlighted information in the Conditions of Exemption that needs to be included in the ACR. The verification that states the information is to be reported in the ACR is in red text.

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If you have any questions, please do not hesitate to contact me at (916) 653-0062, or e-mail at jcaswell@energy.state.ca.us, or contact Dale Rundquist at (916) 651-2072, or e-mail at drundqui@energy.state.ca.us.



Sincerely,

JACK CASWELL
Compliance Program Manager
Siting, Transmission and Environmental
Protection Division

Enclosures

cc: Eileen Allen, Office Manager
Kevin W. Bell, Staff Counsel
Dale Rundquist, CPM

**Communications Record to Donnie Williams,
Plant Manager, Mojave Cogeneration Company Project
(88-SPPE-2C)**

1. **9/18/08** Telephone call to Donnie Williams (plant manager) at Mojave Cogeneration Company to inquire about the lack of annual reports from the project for the last ten years (since 1998).
2. **9/18/08** E-mail to Donnie Williams asking for an address and FAX telephone number to send a letter and a copy of the 1998 Annual Compliance Report (ACR) as an example to use to develop the reports for 2006 and 2007.
3. **9/18/08** E-mail response from Donnie Williams with a current address and FAX number to send information.
4. **9/22/08** Letter to Donnie Williams stating that Annual Compliance Reports need to be filed every year. Enclosed with the letter was the 1998 ACR to use as an example for Donnie to use to develop annual reports for 2006 and 2007.
5. **11/20/08** E-mail to Donnie Williams asking if he needed help in preparing the ACRs.
6. **11/20/08** E-mail from Donnie Williams stating he would have the report out by 11/24/08 or 11/25/08.
7. **01/06/09** E-mail to Donnie Williams offering help to develop the ACR.
8. **01/08/09** E-mail from Donnie Williams stating he had gotten behind working on other issues and that he was working on the report at that time. He thought he should have the report out the next week (01/14/09).

**MOJAVE COGENERATION
AIR QUALITY (pp C-4 - C-14)
CONDITIONS OF EXEMPTION**

1. Fuel Cap Condition: When the Mojave Cogeneration Project (MCP) is fired on natural gas or fuel oil, the combined fuel consumption of MCP, Cogeneration I, Cogeneration I duct burners, and Boilers No. 1 through No. 7 at U.S. Borax shall not exceed a peak fuel consumption rate of 1502 MMBtu/hr and a yearly average rate of 1454 MMBtu/hr. MCC shall annually submit to the California Energy Commission (CEC) Compliance Project Manager (CPM) a report which shall state the cumulative sum of natural gas and fuel oil used on an average hourly basis (MMBtu/hr) by MCP, Cogeneration I, Cogeneration I duct burners, and Boilers No. 1 through No. 7 at U.S. Borax over the one year time period. The report shall include:

- a. An average fuel consumption rate in MMBtu/hr for the combined fuel consumption of the above equipment over the entire one-year time period less scheduled maintenance periods.
- b. For each piece of equipment, summarize the duration of time when equipment was not operational and state the corresponding reason for the down time.
- c. Hourly fuel consumption rates for the combined fuel consumption of the above equipment when total hourly fuel consumption exceeds the average rate limit of 1454 MMBtu/hr.

Verification: The report required above shall be submitted to the CEC CPM with each Annual Compliance Report.

2. Economic Dispatch Conditions:

- a. Except during summer on-peak hours, MCC will make available to U.S. Borax at least 120,000 lbs/hr of steam at a price which is lower than the marginal cost to U.S. Borax of producing steam using natural gas or fuel oil in the U.S. Borax steam generation equipment.
- b. Except as provided in condition 2c below, MCP shall curtail operation of the gas turbine during any hour in which (1) the U.S. Borax duct burner or one or more U.S. Borax steam boilers are operating and, (2) MCP is delivering less than 120,000 lbs/hr of saturated steam at 150 psig to the U.S. Borax facility. The extent of MCP gas turbine curtailment shall be of sufficient magnitude to provide full NO_x and particulate mitigation to zero net increase based on the use of actual source test data for existing sources, maximum permitted emission rates for MCP, and an interpollutant offset ratio of four pounds of NO_x reduction for each one pound of PM₁₀ emission credit.
- c. The limitation contained in condition 2b shall not apply under the following circumstances.
 1. Summer on-peak hours as defined in the SCE's time of use periods during gas firing of the MCP. The summer peak operating mode is currently defined as the period of time occurring from 12:00 noon to 6:00 PM for week day operation during the months of June through September and lasting no more than 498 hours per calendar year.
 2. Hours in which the MCP gas turbine is in startup or shutdown mode.
 3. Hours in which the U.S. Borax gas turbine is shut down or in a start up mode.
 4. Hours in which the MCP plant or the U.S. Borax plant are experiencing an upset/breakdown as provided in Kern County APCD Rule 111.
 5. During periods of annual compliance source testing.

d. MCC shall submit a curtailment plan to the CEC - CPM which demonstrates compliance with condition 2b above. Commercial operation shall not commence until the CEC-CPM approves the plan. The curtailment plan will include:

1. A description of all operating parameters which will be monitored.
2. The criteria which will be applied to determine whether curtailment is required.
3. The method for determining the degree of curtailment which will be required.
4. The operating steps which will be taken to implement a required curtailment.
5. The criteria which will be applied to determine whether the curtailment can be relaxed or eliminated.

e. In the annual compliance report MCC shall include a summary of the magnitude and duration of non-compliance with condition 2b and a characterization of curtailment in operation of the MCP to satisfy the provisions of condition 2b. Included in each summary shall be the following information:

1. Initial date and extent of non-compliance.
2. Reason for non-compliance.
3. Initial date, duration, and magnitude of MCP curtailment in operation.
4. MCP average fuel rate in MMBtu/hr fuel input during MCP curtailment period.
5. MCP emission rates in units of lbs/hr during MCP curtailment, based on continuous emissions monitoring data when available, or engineering calculations.
6. MCP average steam export rate in lbs/hr of saturated steam at 150 psig during MCP curtailment.
7. Justification for relaxing or eliminating MCP curtailment.

f. In the event that SCE changes their definition of summer on-peak from the definition given in condition 2.c.1, MCC shall notify the CEC-CPM of this change by phone and submit to the CEC-CPM for review and approval a plan which provides mitigation of only further particulate and NOx liabilities resulting from the change.

Verification:

1. Prior to commercial operation of the MCP, MCC shall submit to the CEC CPM in the Preliminary Compliance report #1, for review and approval, a curtailment plan which demonstrates MCC compliance with condition 2
2. **MCC shall include, in the Annual Compliance Report, the items required in condition 2e.**
3. In the event that SCE change their definition of summer on-peak from the definition given in condition 2.c.1, MCC shall notify the CEC- CPM of this change by phone and submit to the CEC-CPM for review and approval the mitigation plan required by condition 2.f no later than 60 days after the change in summer on-peak operation occurs.

3. MCP Advisory Committee Condition: A Mojave Cogeneration Project Advisory Committee shall be established by MCC. This Advisory Committee shall include representatives of the MCP and the Department of Defense, and will meet as needed, commencing with issuance by the CEC of the Small Power Plant Exemption. This Committee shall review MCC's progress in construction and startup of the project, particularly with respect to those aspects of the project which could affect visibility. Should issues arise which lead to concerns regarding the project's affect on desert visibility, the Advisory Committee will explore available means of addressing those concerns. Copies of the minutes of Advisory

- d. Vendor guarantee of maximum ammonia emissions of 10 ppmv corresponding to the revised KCAPCD NOx emission rate limits of 8.3 ppmv for gas firing of the MCP turbine.
2. If final source testing of the MCP turbine and the U.S. Borax cooling towers fails to verify the minimum necessary NOx and PM10 mitigation for gas firing of the MCP, MCC shall submit to the CEC CPM for review and approval, a plan for additional mitigation which compensates for the shortfall. This plan shall be approved by the CEC-CPM before commercial operation of the MCP. The minimum necessary NOx and PM10 mitigation for the MCP during gas firing is as follows:
 - a. NOx mitigation during gas firing: No further mitigation of NOx is necessary during gas firing, and based on an MCP NOx emission rate of 15 lbs/hr, and excluding all Cooling tower emission reductions.
 - b. PM10 mitigation during gas firing: 163 lbs/day of PM10 mitigation, computed on a daily basis, and based on an MCP NOx emission rate of 15 lbs/hr, an MCP PM10 emission rate of 8.25 lbs/hr, and excluding all cooling tower emission reductions.

Verification:

1. MCC shall inform both the CEC CPM and members of the Mojave Cogeneration Advisory Committee at least one week in advance of source testing the U.S. Borax cooling towers and the MCP gas turbine.
2. MCC shall submit to the CEC- CPM, in the Preliminary Compliance Report #1, all items required prior to commercial gas firing of the MCP identified in above condition 4.

- 5. Oil Firing Particulate and NOx Mitigation Condition:** MCC shall ensure that operation of the MCP does not result in a net daily increase in particulate emissions during oil firing.
- a. MCC shall seek a modification to the Kern County Air Pollution Control District's Authority to Construct which prohibits MCC from firing on fuel oil unless MCP's gas supply is curtailed by the serving utility and U.S. Borax is firing fuel oil, except during required KCAPCD source testing on oil.
 - b. Upon completion of initial compliance source testing of the MCP turbine, MCC shall apply to the Kern County APCD to reduce allowable particulate emissions from the turbine during oil firing to the lowest levels commensurate with the observed particulate emission rates during the source testing, while allowing for a prudent safety margin.
 - c. Upon completion of initial compliance source testing of the MCP on backup fuel oil, MCC shall apply to the Kern County APCD for a reduction in the NOx emissions limit during backup fuel oil firing to not more than 50 lbs/hr of NOx (as NO2). However, in no case will MCP seek a reduction in the oil fired NOx emission limit lower than 50 lbs/hr if achievement of the lower limit would result in an increase in ammonia slip from the project to a level greater than 10 ppmv.
 - d. Upon completion of initial compliance source testing of the MCP on backup oil fuel, and except as provided in condition 5e below, MCC shall apply to the Kern County APCD for a reduction in the maximum number of hours per day during which backup oil fuel may be used, based on the following schedule:

Maximum Permitted NOx Emissions Limit on Oil (lbs/hr as NO2)	Maximum Hours of Operation on Oil per Day
42.86 - 50.00	6
37.51 - 42.85	7
33.34 - 37.50	8
30.01 - 33.33	9
27.68 - 30.00	10
less than 27.67	

- e. MCC may elect to provide additional NOx emission reductions as mitigation for the MCP in lieu of restrictions in the number of hours of operation on back up fuel oil shown in condition 5d above. In order to exercise this option, MCC shall provide to the CEC CPM an alternative NOx mitigation proposal which describes the proposed alternative NOx mitigation measures. Upon approval of this alternative NOx mitigation proposal by the CEC CPM, MCC need not comply with the requirements of condition 5d above, provided:
1. In no case shall the KCAPCD NOx emission limit during backup fuel oil firing exceed 50 lbs/hr; and
 2. In no case shall backup fuel oil firing of MCP be allowed by the KCAPCD for more than 11 hours during any day.
- f. MCC shall investigate and evaluate the feasibility of alternative back up fuel types for the MCP which have the potential to reduce particulate impacts when compared to oil as a back up fuel before commercial oil firing of the MCP. If an alternative back up fuel is found which has the potential to substantially reduce particulate matter emissions when compared to fuel oil, and is both economically and physically feasible for the MCP, MCC may propose to the CEC-CPM use of the alternative back up fuel type.
- g. Requirements before commercial oil firing:
1. MCC shall submit the following items to the CEC CPM before commercial oil firing of the MCP to ensure that sufficient PM10 and NOx mitigation is intact:
 - a. NOx and PM10 and NH3 source testing results on the MCP turbine during oil firing.
 - b. Amended KCAPCD permit for the MCP, or a copy of a pending application before the KCAPCD, which reflects:
 1. MCP NOx emissions during fuel oil firing to no more than 50 lbs/hr (NOx as NO2).
 2. Daily operation during oil firing based on the schedule contained in condition 5d.
 3. Any further reductions in permitted emission limits identified as being feasible after evaluation of source test results.
 - c. Vendor guarantee of maximum ammonia emissions corresponding to the revised KCAPCD NOx emission rate limits for oil firing of the MCP turbine.
 - d. Amended KCAPCD permit for the MCP, or a copy of a pending application before the KCAPCD, which prohibits MCP from firing fuel oil in every circumstance except periods when (1) natural gas is physically curtailed by the serving utility and U.S. Borax is firing on fuel oil, and (2) except during required KCAPCD source testing of the MCP on oil.
 - e. Alternative back up fuel study.
 2. If final source testing of the MCP turbine and the U.S. Borax cooling towers fails to verify the minimum necessary NOx and PM10 mitigation for oil firing of the MCP, MCC shall submit to the CEC CPM, an emission control plan which verifies that the necessary additional mitigation will be intact and contemporaneous with oil firing of the MCP. The