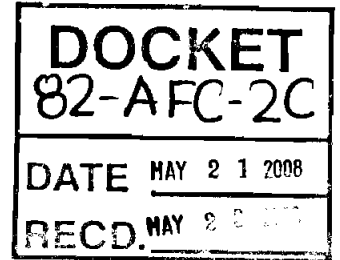


**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512



**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**



|   |   |   |
|---|---|---|
| <p><b>In the Matter of:</b><br/><b>KERN RIVER POWER PROJECT</b></p> | <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> <p>)</p> | <p><b>Docket No. 82-AFC-2C</b></p> <p><b>Order No. 08-521-2</b></p> <p><b>ORDER APPROVING PETITION TO INSTALL<br/>ENHANCED DRY LOW NOX COMBUSTORS</b></p> |
|---|---|---|

The Kern River Cogeneration Company has requested to modify Units 1, 2, 3 & 4 with enhanced dry low NOx combustors. The modifications will allow the Kern River Power Project to comply with the San Joaquin Valley Air Pollution Control District Retrofit Rule 4703. The modification will also achieve a substantial reduction in oxides of nitrogen (NOx) emissions without increasing daily or annual emissions of other pollutants from the facility.

The modifications were approved by the San Joaquin Valley Air Pollution Control District and a revised Permit to Operate was issued in January 2008.

**STAFF RECOMMENDATION**

The Energy Commission staff reviewed the petition and finds that it complies with the requirements of Title 20, Section 1769(a) of the California Code of Regulations and recommends approval of the Kern River Cogeneration Company petition to modify the Kern River Cogeneration Project and amend related Conditions of Certification.

**ENERGY COMMISSION FINDINGS**

Based on staff's analysis, the Energy Commission concludes that the proposed changes will not result in any significant impact to public health and safety or the environment. The Energy Commission finds that:

- o The petition meets all the filing criteria of Title 20, section 1769(a) of the California Code of Regulations concerning post-certification project modifications;
- o The modification will not change the findings in the Energy Commission's Final Decision pursuant to Title 20, section 1755;
- o The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525;
- o The change will be beneficial to the public, the Kern River Cogeneration Company and San Joaquin Valley air quality because NOx emission limits will decrease from 16.4 parts per million by volume (ppmv) to 3 ppmv at 15% O2.

- o There has been a substantial change in circumstances since the Energy Commission certification justifying the change, which is based on information and equipment that was not available to the parties prior to Energy Commission certification.

## CONCLUSION AND ORDER

The California Energy Commission hereby adopts Staff's recommendations and approves the following changes to the Kern River Cogeneration Project's Decision. New language is shown **double-underlined and bolded**, and deleted language is shown in ~~strikeout~~.

## CONDITION OF CERTIFICATION

**AQ-18** Pollutant emissions from each combustion turbine shall not exceed the following limits except during times of startup or shutdown as defined in Condition AQ-17 or transitional periods as defined here in:

|                    |   |
|--------------------|---|
| Gas Fired Case:    |   |
| Particulates       | - 5.0 lbm/hr as PM10<br>- 120.0 lbm/day as PM10   |
| Sulfur Compounds   | - 0.9 lbm/hr as SOx (as SO <sub>2</sub> )<br>- 21.6 lb/day as SOx (as SO <sub>2</sub> )<br>- 0.6 lbm/hr as SO4  |
| Oxides of Nitrogen | - <del>1629.6 lbm/day as NO2</del><br>- <del>67.9 lbm/hr as NO2, 3 hour rolling average</del><br>- <del>16.4 ppmv at 15% O2, 3 hour rolling average</del><br><b>Not to exceed</b><br>- <del>79.7 lbm/hr, 1 hour average</del> |
| Hydrocarbons       | - 12.0 lbm/hr (Non-methane)<br>- 288.0 lbm/day  |
| Carbon Monoxide    | - 1056 lbm/day and<br>- 25 ppmv at 15% O2<br>- 44.0 lbm/hr 3-hour rolling average   |

**After April 30, 2008, the emissions of oxides of nitrogen from each combustion turbine shall not exceed the following limits (these limits are to supersede the NOx emission limits shown above):**

**Oxides of Nitrogen - 552.8 lbm/day and  
- 12.4 lbm/hr as NO2 and 3 ppmv at 15% O2  
calculated on a 3 hour rolling average.**

Protocol: For nitrogen dioxide, the Kern River Cogeneration Company (KRCC) shall identify the following for each day of operation, except during times of start up or shutdown, as defined in Condition AQ-17:

- (1) the daily maximum hourly mass emission rate (lbs/hr),
- (2) the daily maximum rolling 3-hour average mass emission rate (lbs/hr) and
- (3) the total daily mass emissions (lbs/day).

For carbon monoxide, KRCC shall identify the total daily mass emissions (lbs/day) for each day of operation, except during times of start up or shutdown, as defined in Condition AQ-17.

For particulate matter (PM10), sulfur compounds (SO<sub>2</sub> and SO<sub>4</sub>) and non-methane hydrocarbons, KRCC shall determine through the initial source test, the fuel-based emission factors (lbs/mmBtu) for each pollutant. Using these factors, KRCC shall determine the maximum allowable fuel input rate (mmBtu/hr) that would comply with the above stated emission limits (lbs/hr) (i.e., emission limit / emission factor = fuel input rate). KRCC shall then compare these fuel input rates (as determined above) with the actual daily maximum fuel input rate (mmBtu/hr) for each day of operation, except during times of start up or shutdown, as defined in Condition AQ-17.

KRCC shall submit all excess emission reports and break down reports to demonstrate compliance with all concentration limits.

**A transitional period is defined as a primary re-ignition period which must meet the following three conditions:**

- **shall not exceed one hour.**
- **NOx emissions shall not exceed 15 ppmvd @ 15% O2 during that hour and**
- **CO emissions shall not exceed 25 ppmvd @ 15% O2.**

**Verification:** KRCC shall submit quarterly emission reports with all the information identified in the above protocol to the CEC compliance project manager.

**IT IS SO ORDERED.**

Date: May 21, 2008

STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

  
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JACKALYNE PFANNENSTIEL, Chairman