



Kern River Cogeneration Company

Box 80478, Bakersfield, CA 93380

New Phone Number  
661-615-4630

Neil E. Burgess, Executive Director

Sent Via Federal Express On:

September 6, 2007

KR-9360

Mr. Christopher Meyer  
Compliance Project Manager  
Siting and Environmental Division  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512

<b>DOCKET</b> 82-AFC-20
<b>DATE</b> SEP 06 2007
<b>RECD.</b> SEP 10 2007

Re: **Kern River Cogeneration Company (82-AFC-2)**  
**Petition for Insignificant Air Quality Amendment**

Dear Mr. Meyer:

This petition is being submitted to allow KRCC to add additional DLN1+ equipment in KRCC Units 2 and 4 and to replace the existing dry low NOx combustors in KRCC Units 1 and 3 with DLN1+ combustors. KRCC has applied for SJVAPCD Authority to Construct for these modifications and expects SJVAPCD approval in early September 2007. The Compliance Project Manager previously received a copy of the SJVAPCD application and the EPA notification of PSD non-applicability. For this reason copies of these documents are not included with this petition. The CEC is on the distribution list for the final SJVAPCD permit.

The petition does not require the addition, elimination or modification of any conditions of certification. Furthermore, the proposed change poses no potential for adverse environmental impacts. Under these circumstances, pursuant to Section 1769 (a) (2), CEC Staff have the authority to approve the proposed change without full CEC approval providing a 14-day notice is provided to the docket, each commissioner and any party on the post-certification mailing list.

If you have any questions, please contact Daniel Beck at (661) 615-4660 or David Stein of CH2M HILL at (510) 587-7787.

DLB: klz

Attachment

xc: D. Stein, CH2M HILL - (w/attachment)

2007-0680

## 1.0 OVERVIEW

Kern River Cogeneration Company (KRCC) received original approval (82-AFC-2) in September 1983 from the California Energy Commission (CEC) for a 300 megawatt (MW) cogeneration plant in Kern County, California. The facility consists of four (4) 75 MW (nominal) natural-gas fired General Electric Frame 7EA combustion turbines equipped with dry Low NO<sub>x</sub> (DLN) combustors, four (4) unfired heat recovery steam generators (HRSGs), each capable of generating up to 450,000 pounds per hour (lb/hr) of steam for delivery to the adjacent oilfield operator for use in enhanced oil recovery and ancillary equipment. KRCC is owned jointly by Chevron and Edison Mission Energy. A post-certification petition for the operation of two of the four combustion turbines (Units 3 and 4) in simple cycle mode and removal of a requirement to meet explicit cogeneration efficiency criteria was approved by the CEC on April 7, 2004. A post-certification petition to extend flexibility for Units 1 and 2 to also operate in either simple cycle or cogeneration mode was approved as an insignificant change on January 20, 2006. An additional post-certification petition to replace the existing dry low NO<sub>x</sub> combustors in KRCC Units 2 and 4 with General Electric (GE) enhanced dry low NO<sub>x</sub> (DLN1+) combustors was approved as an insignificant change on July 24, 2006.

This petition is being submitted to allow KRCC to add additional DLN1+ equipment in KRCC Units 2 and 4 and to replace the existing dry low NO<sub>x</sub> combustors in KRCC Units 1 and 3 with DLN1+ combustors. KRCC has applied for SJVAPCD Authority to Construct for these modifications and expects SJVAPCD approval in early September 2007. The Compliance Project Manager previously received a copy of the SJVAPCD application and the EPA notification of PSD non-applicability. For this reason copies of these documents are not included with this petition. The CEC is on the distribution list for the final SJVAPCD permit.

KRCC and GE expect that the DLN1+ combustors will allow KRCC to achieve compliance with the SJVAPCD Rule 4703 retrofit requirement of 3 ppm NO<sub>x</sub> at 15% O<sub>2</sub> by the compliance date of April 30, 2008. The petition does not require the addition, elimination or modification of any conditions of certification. Furthermore, the proposed change poses no potential for adverse environmental impacts.

This petition for a post-certification amendment is being submitted under the provisions of Section 1769 of Title 20, California Administrative Code (*CEC Rules of Practice and Procedure and Power Plant Site Certification Regulations*) to seek a minor modification to the air quality conditions of certification. Because the proposed amendment does not require a change to any conditions of certification, pursuant to Section 1769 (a) (2), CEC Staff have the authority to approve the proposed change without full CEC approval, providing that a 14-day notice is made to the docket, each commissioner, and any party on the post-certification mailing list. The petition is organized to address the informational requirements of Section 1769 in the order they appear in the section. The requirement appears in ***bold italics*** followed by a narrative response.

## **2.0 INFORMATION REQUIRED BY SECTION 1769**

### ***(A) A complete description of the proposed modifications, including new language for any conditions that will be affected***

Kern River Cogeneration Company (KRCC) is a cogeneration facility located in the Kern River oilfield near Bakersfield, CA. The facility employs four (4) General Electric Frame 7EA combustion turbines (CTs) and four (4) unfired heat recovery steam generators (HRSGs) to cogenerate 300 MW (nominal rating) of electricity and 1.8 million pounds per hour of steam for enhanced oil recovery. Each CT/HRSG generates approximately one quarter of the total steam and electricity output. Units 1 and 3 are equipped with Dry Low NO<sub>x</sub> (DLN) combustor technology and Units 2 and 4 are equipped with DLN1+ combustor technology. All of the units are capable of meeting the current SJVAPCD Rule 4703 NO<sub>x</sub> limit for gas turbines of 16.4 ppmv at 15% O<sub>2</sub>, dry and a CO emissions limit of 25 ppmv at 15% O<sub>2</sub>, dry.

The proposed change involves installing additional GE DLN1+ equipment in KRCC Units 2 and 4 and replacing the DLN combustors in KRCC Units 1 and 3 with DLN1+ technology. KRCC and GE expect that the DLN1+ combustors will allow KRCC to achieve compliance with the SJVAPCD Rule 4703 future retrofit requirement of 3 ppm NO<sub>x</sub> at 15% O<sub>2</sub> without the need for installation of selective catalytic reduction (SCR) systems. KRCC has applied to SJVAPCD to lower the NO<sub>x</sub> limit to 3 ppm at 15% O<sub>2</sub> as of the compliance deadline of April 30, 2008.

No changes to any conditions of certification are required to implement this proposed amendment.

### ***(B) A discussion of the necessity for the proposed modifications***

The modifications are necessary to allow KRCC to comply with Rule 4703 NO<sub>x</sub> limitations by the compliance deadline of April 30, 2008.

### ***(C) If the modification is based on information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time***

The modification is not based on information that was known to the petitioner at the time of the certification. The DLN1+ combustor is a recent GE technology that was not available at the time that KRCC was originally approved by the CEC.

### ***(D) If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted***

The proposed modification is based on new information that was not available at the time of the original decision. The use of the DLN1+ combustors does not undermine the basis for the original CEC approval.

***(E) An analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts***

A complete analysis of the proposed changes is performed by the SJVAPCD during their review of KRCC's Authority-to-Construct application. The proposed change will achieve a substantial NOx emission reduction required by regulation without increasing allowable daily or annual emissions of other pollutants from the facility. Therefore, the proposed change will have a beneficial air quality impact.

No other environmental issues or concerns are affected by the proposed change and no additional analysis is needed for other environmental issue areas.

***(F) A discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards***

SJVAPCD's issuance of the Authorities to Construct for the proposed changes provides documentation that the proposed changes will comply with all applicable laws, ordinances, regulations and standards.

***(G) A discussion of how the modification affects the public***

The proposed revisions will have a beneficial impact on the public since air quality impacts will be lessened by the proposed change to KRCC.

***(H) A list of property owners potentially affected by the modification***

There are no property owners that will be affected by the proposed modification. A single property owner is located within 1000 feet of the KRCC site, Chevron. The applicable contact information for Chevron is provided below:

	Physical Address	Mailing Address
Chevron	1546 China Grade Loop Bakersfield, CA 93302	P.O. Box 1392 Bakersfield, CA 93380

***(I) A discussion of the potential effect on near by property owners, the public and the parties in the application proceedings***

The proposed revisions will have a positive impact on near by property owners, since air quality impacts will be lessened by the proposed change to KRCC.

**3.0 SCHEDULE**

The SJVAPCD approval of the proposed change is expected in early September and will be distributed to the CEC. We respectfully request that the CEC process this petition to approve the described change in the method of operation of the facility as expeditiously as is possible, so that KRCC has the ability to commence with the permanent installation of the DLN1+ combustors to meet the regulatory compliance deadline of April 30, 2008.

#### **4.0 PETITION CONTACTS**

Questions regarding this petition should be directed to:

Daniel Beck  
HES Supervisor  
Kern River Cogeneration Company  
P.O. Box 80478  
Bakersfield, CA 93380  
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#### **5.0 SUMMARY**

This minor amendment will require no changes to existing conditions of certification, will have no significant environmental impacts, and will have a beneficial effect on air quality. Pursuant to Section 1769 (a) (2) of the CEC Siting Regulations, CEC staff is authorized to approve this proposed change without the need for full Commission approval, provided a 14-day notice is submitted to the docket, each Commissioner and any party on the post-certification mailing list.

Expedited processing of this petition is respectfully requested.