



Kern River Cogeneration Company

Box 80478, Bakersfield, CA 93380

(661) 392-2630

Neil E. Burgess, Executive Director

June 22, 2006

KR-9122

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

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

Dear Mr. Meyer:

This petition is being submitted to allow Kern River Cogeneration Company (KRCC) permission to replace the dry low NOx combustors in KRCC Units 2 and 4 with General Electric (GE) enhanced dry low NOx combustors (DLN1+). KRCC was granted an experimental research exemption from San Joaquin Valley Air Pollution Control District (SJVAPCD) to test the performance of these combustors in August 2005 and February 2006. KRCC has subsequently received SJVAPCD Authority to Construct to make the DLN1+ combustors a permanent installation and is now seeking similar approval from the CEC in the form of this petition. The proposed change has the potential to result in voluntary emission reductions that will have a beneficial impact on air quality.

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 Mervyn Soares at (661) 392-2643 or David Stein of CH2M HILL at (510) 587-7787.

A handwritten signature in cursive script that reads "Neil E. Burgess".

MAS: yh

Attachment

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

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_x (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. An additional 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.

This petition is being submitted to allow KRCC to replace the dry low NO_x combustors in KRCC Units 2 and 4 with General Electric (GE) enhanced dry low NO_x combustors (DLN1+). KRCC was granted an experimental research exemption from San Joaquin Valley Air Pollution Control District (SJVAPCD) to test the performance of these combustors in August 2005 and February 2006. KRCC has subsequently received SJVAPCD Authority to Construct to make the DLN1+ combustors a permanent installation and is now seeking similar approval from the CEC in the form of this petition.

KRCC is hopeful that the DLN1+ combustors will allow KRCC to achieve compliance with the SJVAPCD Rule 4703 future retrofit requirement of 3 ppm NO_x at 15% O₂. However, the installation of the DLN1+ combustors is a voluntary measure at this time and KRCC proposes to maintain compliance with existing SJVAPCD Permit to Operate and CEC license conditions.

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.

This petition is consistent with attached approval from the San Joaquin Valley Air Pollution Control District (SJVAPCD). Appendix A includes the complete copy of the SJVAPCD engineering analysis and proposed Authorities to Construct.

This petition for a post-certification amendment of KRCC 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. 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 ¼ of the total steam and electricity output. Each CT is equipped with Dry Low NO_x (DLN) combustor technology capable of meeting the current SJVAPCD Rule 4703 NO_x limit for gas turbines of 16.4 ppmv at 15% O₂, dry and a CO emissions limit of 25 ppmv at 15% O₂, dry.

The proposed change involves the permanent installation of GE DLN1+ combustors in KRCC Units 2 and 4. KRCC is hopeful that the DLN1+ combustors will allow it to achieve compliance with the SJVAPCD Rule 4703 future retrofit requirement of 3 ppm NO_x at 15% O₂ without the need for installation of selective catalytic reduction (SCR) systems. However, because the proposed installation is a voluntary measure, KRCC is not proposing to alter its

existing NOx emission limits at this time. Should continued operation of the DLN1+ combustors prove successful, KRCC will submit applications to SJVAPCD to lower the NOx limit to 3 ppm at 15% O₂ prior to 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 in order to allow KRCC to continue to demonstrate the effectiveness of the DLN1+ combustors' ability to achieve future Rule 4703 requirements.

(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 has been performed and approved by the SJVAPCD. The engineering analysis and proposed Authorities to Construct are included in Appendix A. The proposed change will not increase allowable daily or annual emissions from

the facility. Rather, it provides the prospect for substantial early and voluntary NOx emission reductions. Based on the above, the proposed change will have a beneficial air quality impact.

No other environmental issues or concerns are impacted 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

The proposed changes will comply with all applicable laws, ordinances, regulations and standards as demonstrated by the attached SJVAPCD engineering analysis and approval (Appendix A).

(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:

	<u>Physical Address</u>	<u>Mailing Address</u>
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 has approved the proposed change (see Appendix A). We respectfully request that the CEC process this petition to approve the described change in the method of operation of the facility expeditiously as is possible, so that KRCC has the ability to commence with the permanent installation of the DLN1+ combustors.

4.0 PETITION CONTACTS

Questions regarding this petition should be directed to:

Mervyn Soares
HES Manager
Kern River Cogeneration Company
P.O. Box 81438
Bakersfield, CA 93380
Phone: (661) 392-2643
Fax: (661) 392-2990
Email: masoares@sycamore.com

David A. Stein, PE
Vice President
CH2M HILL
155 Grand Avenue
Oakland, CA 94612
Phone: (510) 587-7787
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Email: dstein@ch2m.com

5.0 SUMMARY

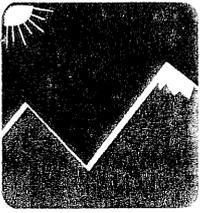
This minor amendment will require no changes to existing conditions of certification, will have no significant environmental impacts and will have a beneficial effect on air quality.

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..

APPENDIX A

**SJVAPCD ENGINEERING ANALYSIS AND PROPOSED AUTHORITIES TO
CONSTRUCT**



San Joaquin Valley
Air Pollution Control District

MAY 10 2006

Neil Burgess
Kern River Cogeneration Company
P.O. Box 80478
Bakersfield, CA 93380

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
District Facility # S-88
Project # S-1060416

Dear Mr. Burgess:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The proposed modification is to replace the existing combustors in Unit #2 and Unit #4 with GE enhanced dry low NOx combustors (DLN1+).

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Thomas Goff, Permit Services Manager, at (661) 326-6900.

Thank you for your cooperation in this matter.

Sincerely,

for David Warner
Director of Permit Services

Enclosures
cc: Steve Tomlin, Permit Services

KERN RIVER COGEN CO	
NEB <i>MB</i>	JRB
KSL	RTM
GIE	JAB
ISP	<i>(DAB) DLG</i>
MAS <i>MB</i>	
ADD	
Copy: <i>DLB</i>	
Note:	
MAY 11 2006	

David L. Crow
Executive Director / Air Pollution Control Officer

San Joaquin Valley Unified
Air Pollution Control District
Application Review

Facility Name: Kern River Cogeneration Company
Mailing Address: P.O. Box 81617
Bakersfield, CA 93380

Contact Name: Mervyn Soares
Kern River Cogeneration Company
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Other Contact: David Stein
CH2M Hill
Telephone: (510) 587-7787
E-Mail: dstein@ch2m.com

Processing Engineer: Steve Tomlin, Sr. Air Quality Engineer
Date: April 17, 2006

Lead Engineer: Allan Phillips, Sup. Air Quality Engineer 
Date:

MAY 01 2006

Project Number: S-1060416
Application Numbers: S-88-2-15 and S-88-4-15
Submitted: February 7, 2006
Complete: April 6, 2006

I. PROPOSAL

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 (GE) model 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. These units are part of Chevron's Heavy Oil Central Stationary Source in the Kern County Oil Fields.

On August 18, 2005, KRCC was granted an experimental research exemption for the installation and testing of GE enhanced dry low NO_x (DLN1+) combustors in one turbine, Unit #4. On February 28, 2006, KRCC was granted an experimental research exemption for the installation and testing of GE DLN1+ combustors in a second turbine, Unit #2. The DLN1+ combustors are being testing with the goal of achieving NO_x emissions no higher than 3 ppmv @ 15% O₂, which is the future emission limit in Rule 4703, Stationary Gas Turbines. If this emission level cannot be achieved with enhanced dry low NO_x combustors, KRCC will most likely install a selective catalytic reduction (SCR) system on the turbines in order to meet the future Rule 4703 emission limits. The compliance deadline for meeting the 3 ppmv @ 15% O₂ limit in Rule 4703 is no later than April 30, 2008.

With this application, KRCC is requesting Authorities to Construct (ATC) for the permanent installation of the DLN1+ combustors in Units #2 and #4. The experimental research exemptions granted previously are valid only for 180 days of experimental operation. KRCC desires to continue testing of the DLN1+ combustors past 180 days.

Because the ongoing emission performance of the new DLN1+ combustors has not been established, KRCC is requesting to maintain the current permit limits for NO_x emissions, which is 16.4 ppmv @ 15% O₂. At a future date, KRCC will submit applications for ATC to lower the permitted NO_x level to 3 ppmv @ 15% O₂ to validate compliance with Rule 4703.

II. APPLICABLE RULES

Rule 1080	Stack Monitoring (12/17/92)
Rule 1081	Source Sampling (12/16/93)
Rule 2201	New and Modified Stationary Source Review (12/15/05)
Rule 2520	Federally Mandated Operating Permits (6/21/01)

Rule 2540	Acid Rain Program (11/13/97)
Rule 4001	NSPS Subpart GG – Standards of Performance for Stationary Gas Turbines (04/14/99)
Rule 4101	Visible Emissions (02/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4703	Stationary Gas Turbines (04/25/02)
Rule 4801	Sulfur Compounds (12/17/92)
CH&S Code, Section 41700	

III. PROJECT LOCATION

KRCC is located in the center of the north ½ of Section 32, Township 28 South, Range 28 East in the Kern River Oil Field, within the central Kern County oil fields. There are no schools within 1000 feet of the project site.

IV. PROCESS DESCRIPTION

In August of 2005, KRCC requested and the District granted an experimental research exemption for the temporary installation and testing of an experimental enhanced dry low NO_x combustor technology from GE, called DLN1+, in Unit #4. Following the first phase of the tests, KRCC and GE determined that lower NO_x emissions are achievable with additional design modification to the experimental DLN1+ combustors. To meet the schedule for compliance with Rule 4703 in a timely and efficient manner, GE needed a second unit retrofit with the DLN1+ combustors. As a result, in February of 2006, KRCC requested and the District granted an experimental research exemption for the temporary installation and testing of DLN1+ combustors in Unit #2.

According to KRCC, under their new Power Purchase Agreement with Southern California Edison, KRCC will not be allowed to perform and scheduled maintenance on the dispatchable units. Furthermore, the agreement's contract terms require that the units designated as dispatchable versus baseload rotate every six months. Because of this contractual arrangement, KRCC will not be allowed to perform any testing and/or maintenance on Unit #4 from May 1, 2006 through November 1, 2006. To meet GE's proposed schedule for testing and implementation, as well as gain a sufficient amount of runtime to prove reliability of the 3 ppm system prior to April 2008, GE needs to continue testing of the DLN1+ system on Unit #2 as well. Unit #2 is on an opposite rotating schedule of Unit #4, so as to allow continued development of the DLN1+ system while meeting contractual agreements.

V. EQUIPMENT LISTING

- S-88-2-14:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #2)
- S-88-4-14:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #4)

Authorities to Construct S-88-2-14 and -4-14 have been implemented and are awaiting conversion through the Title V process. Therefore, they will be used as the base documents for this project.

See Attachment A for copies of conditions and equipment description for current permits.

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

The combustion turbines will utilize GE's proprietary Enhanced Dry Low NO_x (DLN1+) technology. The DLN1+ technology employs lean premixed and multi-stage combustion, resulting in reduced NO_x formation. The DLN1+ combustor technology is expected to achieve NO_x emission levels of no higher than 5 ppmv @ 15% O₂ in the near term. However, KRCC is not proposing to reduce the NO_x emission level from the currently permitted level of 16.4 ppmv @ 15% O₂ at this time. No post combustion emission control is required for either NO_x or CO with this system.

The DLN1+ system is very similar to the current DLN system. The new system consists of new combustion hardware and supporting accessory systems to replace the existing hardware and accessory systems. The new combustion hardware consists of combustion liners, fuel nozzles, transition pieces, and flow sleeves. These new components have improved air/fuel ratio management, relative to the current DLN design, which allows for a reduction in NO_x without compromising operability boundaries such as combustion dynamics.

DLN1+ controls and emissions monitoring sensors are also part of the system. These components allow the gas turbine engine to maintain a fixed level of NO_x emissions by automatically adjusting the gas turbine engine fuel splits (between stages) to compensate for ambient temperature changes and/or hardware degradation over time. Additionally, combustion dynamic levels are monitored to ensure the levels are within acceptable limits whenever the combustion system is operating.

New fuel system accessories have also been included. These accessories deliver fuel to three independent fuel passages, the primary, secondary, and pilot. Fuel is delivered to the combustor cans via new gas control valves, piping manifolds, and flexible hoses (pigtailed). The new gas fuel valves are housed in the new fuel module. The DLN1+ system for GE model 7EA turbines such as these includes a transfer system with purge valves, manifolds, and pigtailed.

The following combustion hardware will be installed:

- DLN1+ end cover assemblies with extender primary fuel nozzles
- DLN1+ secondary fuel nozzle with independent sub-pilot
- New cap/liner/venturi assemblies (provides improved air/fuel management and reduced can-to-can variation)
- DLN1+ flow sleeves
- DLN1+ transition pieces

The following fuel system components will be installed:

- New fuel module
- Independent: 1) primary, 2) secondary, 3) transfer, and 4) pilot valves
- New speed-ratio valve
- Tuning valves on the primary manifold (one for each can)
- Pilot air system (pilot air module, manifold, and pigtailed)

The following controls and accessories will be installed:

- CPR (compressor pressure ratio) sensor package
- Three ambient temperature sensors
- Emissions measurement package (probe, sample line, analyzer, enclosure)
- DLN1+ controls software
- Mark V upgrades (new main boards, new PROM sets)

GE confirms that the maximum fuel flow and therefore the maximum heat input will not be changing as a result of the DLN1+ system. As well, the output of the unit is unaffected.

VII. CALCULATIONS

A. Assumptions:

Operating schedule: 24 hr/day, 365 day/yr

B. Emission Factors:

Emission factors are identical for both S-88-2 and S-88-4. The maximum air contaminant mass emission rates (lb/hr), concentrations (ppmvd @ 15% O₂), and startup and shutdown emissions rates for the CTGs are summarized below based on current permit conditions:

Emission Factors During Normal Operations

	NO _x	CO	VOC	PM ₁₀	SO _x
Mass Emission Rates (per turbine, lb/hr)	79.7 (1-hr avg) 67.9 (3-hr avg)	44 (3-hr avg)	12	5.0	0.9
ppmvd @ 15% O ₂ limits	16.4 (3-hr avg)	25 (3-hr avg)	--	--	--

Emission Factors During Startups and Shutdowns

	NO _x	CO	VOC	PM ₁₀	SO _x
Mass Emission Rates (per turbine, lb/hr)	140 (2-hr avg)	140 (2-hr avg) 200 (1-hour avg)	12	5.0	0.9

Note that the emission factors for both the pre-project and post-project cases are identical.

C. CALCULATIONS

1. Pre-Project Potential to Emit (PE1)

The pre-project potential to emit is equivalent to PE2 and is identical for both S-88-2 and S-88-4.

Maximum Daily Emissions, lb/day (PE1)

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-2-13	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²
S-88-4-13	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²
Total	3259.2	2112	576	240	43.2

¹ Current Permit to Operate emission limit (includes startup and shutdown emissions)

² Maximum hourly emissions x 24 hr/day

Maximum Annual Emissions, lb/yr¹

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-2-13	594804	385440	105120	43800	7884
S-88-4-13	594804	385440	105120	43800	7884
Total	1189608	770880	210240	87600	15768

¹ Maximum daily emissions x 365 day/yr

2. Historically Adjusted Potential to Emit (HAPE)

As set forth in Rule 2201, Section 4.4, the historically adjusted potential to emit for each unit is calculated as:

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Since the emission factors reported in Section B, above, are identical for both the pre-project and post-project case, EF2 = EF1. Therefore,

$$\text{HAPE} = \text{PE1}$$

The HAPE is identical for both S-88-2 and S-88-4 as is shown in section 1., above as:

Historically Adjusted Potential to Emit, lb/day (HAPE)

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-3-11	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²
S-88-4-11	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²

¹ Current Permit to Operate emission limit (includes startup and shutdown emissions)

² Maximum hourly emissions (Table VII-3), lb/hr x 24 hr/day.

3. Post-Project Potential to Emit (PE2)

There are no changes to hourly, daily or annual potential to emit for either unit.

Post-Project Maximum Daily Emissions, lb/day

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-3-12	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²
S-88-4-12	1629.6 ¹	1056 ¹	288 ²	120 ²	21.6 ²
Total	3259.2	2112	576	240	43.2

¹ Current Permit to Operate emission limit (includes startup and shutdown emissions)

² Maximum hourly emissions x 24 hr/day

Post-Project Maximum Annual Emissions, lb/yr¹

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-3-12	594841	385440	105120	43800	7884
S-88-4-12	594841	385440	105120	43800	7884
Total	1189608	770880	210240	87600	15768

¹ Maximum daily emissions x 365 day/yr

4. Adjusted Increase In Permitted Emissions (AIPE)

As set forth in Rule 2201, Section 4.3, the adjusted increase in permitted emissions is calculated as:

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Adjusted Increase In Permitted Emission, lb/day (AIPE)

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-2					
PE2	1629.6	1056	288	120	21.6
HAPE	1629.6	1056	288	120	21.6
AIPE	0	0	0	0	0
S-88-4					
PE2	1629.6	1056	288	120	21.6
HAPE	1629.6	1056	288	120	21.6
AIPE	0	0	0	0	0

5. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

The KRCC facility is part of Chevron's (formerly Texaco's, formerly Getty's) Heavy Oil Central stationary source consisting of facility ID's S-88, S-511, S-1127, S-1131, and S-1551 because the units are permitted to be used in the production of oil and are owned by Chevron. This source is a major source for all pollutants. The pre-project Stationary Source Potential to Emit is estimated as follows (detailed report of each permit unit's contribution is included in Attachment ??):

Pre-Project Stationary Source Potential To Emit (SSPE1)

	NO _x	CO	VOC	PM ₁₀	SO _x
SSPE1*	6513932	4763628	4771165	1505015	6909109

* Estimated Level - Actual SSPE is higher as some active units are not included due to limited information concerning the PE

6. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.9 of District Rule 2201, the Pre-project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

There is no change in the contribution of permit units to the SSPE. Therefore, SSPE2 equals SSPE1 and is as follows:

Post-Project Stationary Source Potential To Emit (SSPE2)

	NO _x	CO	VOC	PM ₁₀	SO _x
SSPE2*	6513932	4763628	4771165	1505015	6909109

* Estimated Level - Actual SSPE is higher as some active units are not included due to limited information concerning the PE

7. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a major source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values:

Major Source Determination

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
Pre-Project, SSPE1*	6513932	4763628	4771165	1505015	6909109
Post-Project, SSPE2*	6513932	4763628	4771165	1505015	6909109
Major Source Thresholds	50000	200000	50000	140000	140000
Major Source?	Y	Y	Y	Y	Y

* Estimated Level - Actual SSPE is higher as some active units are not included due to limited information concerning the PE

This source is an existing Major Source for all pollutants. No change in other criteria pollutants are proposed or expected as a result of this project.

8. Baseline Emissions (BE)

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.23

NO_x, VOC, PM₁₀ and SO_x

Pursuant to Rule 2201, subsection 3.7.1.3, baseline emissions (BE) are equal to the pre-project potential to emit (PE1) for fully offset emission units and for pollutants for which a source is not a major stationary source. As discussed in section VII.C.9 below, except for CO, the KRCC emission units were fully offset at the time they were originally permitted under the provisions of the then existing Kern County APCD New Source Review Rule 210.1.

Therefore, BE = PE1 for NO_x, VOC, PM₁₀ and SO₂

CO

For CO emissions, the emission units are not Highly Utilized, Fully Offset, nor Clean; therefore, BE=HAE.

The baseline period is the 2-year period preceding submission of the application. For this project, a baseline period on February 1, 2004 to January 31, 2006 was established based on an application submittal date of February 7, 2006.

Historical actual emissions during the baseline period were obtained from continuous emissions monitoring records available from the facility continuous emissions monitoring system (CEMS). (Due to the volume of records, this data is not included as an attachment, but can be found in the project file).

Baseline Emissions

Permit Unit	NO _x	CO	VOC	PM ₁₀	SO _x
S-88-2-14	594841	55625	105120	43800	7884
S-88-4-14	594841	46064	105120	43800	7884

9. Major Modification and Federal Modification

Section 3.23 of District Rule 2201 defines a Major Modification as "as defined in 40 CFR Part 51.165 (as in effect on December 19, 2002) and part D of Title I of the CAA. 40 CFR Part 51.165 paragraph (a)(1)(v)(A) defines a Major Modification as "any physical change in or change in the method of operation of a major stationary source that would result in: ... a significant net emissions increase of a regulated NSR pollutant from the major stationary source."

Section 3.17 of District Rule 2201 defines a Federal Major Modification as the same as Major Modification, with some exceptions.

Major Modification and Federal Major Modification Thresholds (lb/yr)

NO _x	CO	VOC	PM ₁₀	SO _x
50,000	100,000	50,000	30,000	30,000

As discussed in Section VII.C.7 above, the facility is a Major Source for all pollutants. The project must "result in" a significant increase in emissions in order to trigger a Major Modification or Federal Major Modification.

However, since the KRCC facility is located in a CO attainment area, and since 40CFR51.165 addresses Major Modifications in nonattainment areas only, this project is not a Major Modification for CO pursuant to 40CFR51.165.

(It is noted that EPA has not delegated Federal Prevention of Significant Deterioration (PSD) permitting requirements under 40CFR52.21 to the District. KRCC is in contact with EPA regarding PSD requirements for this project.)

According to the original project evaluation for construction and operation of the KRCC facility (Authority to Construct issued in April of 1983), all emissions except CO were fully offset for the emissions units within this project. (For CO, modeling was performed which demonstrated that the ambient air quality standards would not be exceeded).

The reductions used to provide the offsets were made prior to adoption of a formal banking rule, and thus were tracked in the form of a cumulative net emissions change for the stationary source. These reductions were applied to the KRCC project to offset the emissions increases. NO_x, VOC, and SO_x emissions were directly offset. PM10 emissions were offset with a combination of NO_x reductions at a 13.3:1 (NO_x for PM10) offset ratio, and SO_x reductions at a 3.3:1 (SO_x for PM10) ratio. Therefore these units qualify as Fully Offset for NO_x, VOC, PM10 and SO_x as the new emissions were fully mitigated under the New Source Review rule.

To calculate the applicability of a Major Modification for these pollutants, the net increase in emissions is based on the change in permitted annual emissions. There is no change in annual permitted emissions with this project. Therefore the net emissions increase is zero and this project is neither a Major Modification nor a Federal Major Modification for any pollutant.

VIII. COMPLIANCE

Rule 1080 *Stack Monitoring*

This rule allows the APCO to request the installation and use of continuous emissions monitors (CEMs), and specifies performance standards for the equipment and administrative reporting, recordkeeping and violation and equipment breakdown notification requirements. The units are currently equipped with operational CEMs and permit conditions that meet the requirements of this rule.

Rule 1081 *Source Sampling*

This rule requires adequate and safe facilities for use in sampling to determine compliance and specifies methods and procedures for source testing, sample collection and compliance determination. The existing operating permits already demonstrate compliance with the requirements of this rule for the HRSG stack. CEMS extraction ports already exist at the bypass stack.

Rule 2201 *New and Modified Stationary Source Review*

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following:

- a) Any new emissions unit or relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding 2.0 pounds in any one day*,
- b) Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Potential to Emit (AIPE) exceeding 2.0 pounds in any one day*,

- c) Any new or modified emissions unit, in a stationary source project, which results in a major modification, as defined in Rule 2201, section 3.23.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day, Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no new emissions units associated with this project and there are no emissions units being relocated from one stationary source to another; therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

b. Modification of emissions units – AIPE > 2 lb/day

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE₂ = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

PE₁ = The emissions unit's Potential to Emit prior to modification or relocation, (lb/day)

EF₂ = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF₂ is greater than EF₁ then EF₂/EF₁ shall be set to 1

EF₁ = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE}_2 - (\text{PE}_1 * (\text{EF}_2 / \text{EF}_1))$$

For this project, there is no change in emission factor or potential to emit. Therefore the AIPE is zero. Therefore, BACT is not triggered.

d. Major Modification

As discussed in Section VII.C.9 above, this project does not constitute a Major Modification; therefore BACT is not triggered.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post-project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 or Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Determination of Offset Requirements

	NO _x	CO	VOC	PM ₁₀	SO _x
Post-project SSPE (SSPE2)*	6494222	4752130	4769522	1497350	6857644
Offset Threshold	20,000	200,000	20,000	29,200	54,750
Greater Than Offset Threshold?	Yes	Yes	Yes	Yes	Yes

* Estimated Level - Actual SSPE is higher as some active units are not included due to limited information concerning the PE

2. Quantity of Offsets Required

Pursuant to Rule 2201, subsection 4.7.1, since the Pre-project SSPE is greater than the emission offset thresholds for all pollutants, the SSPE is calculated as the difference between PE2 and Baseline Emissions (BE) for each unit:

Emissions to be offset = PE2 – BE

NO_x, VOC, PM10 and SO_x

Pursuant to Rule 2201, subsection 3.7.1.3, baseline emissions (BE) are equal to the pre-project potential to emit (PE1) for fully offset emission units and for pollutants for which a source is not a major stationary source. As discussed in section VII.C.9 above, except for CO, the KRCC emission units were fully offset at the time they were originally permitted under the provisions of the then existing Kern County APCD New Source Review Rule 210.1.

Therefore, BE = PE1 for NO_x, VOC, PM₁₀ and SO₂

From the pre and post-project potential to emit analysis above, PE1 = PE2 (see Section VII C.1 and 2., above).

Therefore, BE = PE2 and emissions to be offset for NO_x, VOC, PM₁₀ and SO₂ = 0

CO

For CO, baseline emissions were obtained from continuous emissions monitoring records available from the facility continuous emissions monitoring system (CEMS). This data is included in the project file. The quantity of offsets required for CO are calculated below.

Determination of CO Emission Offset Requirements, lb/yr

	CO
Post-project Potential to Emit (PE2)	770880
Baseline Emissions (S-88-2-14 & S-88-4-14)	101689
Required CO Offsets	669191

Section 4.6 of Rule 2201 allows modeling to be performed in lieu of providing CO emission offsets, provided the results of the modeling indicates CO emissions will not cause or contribute to a violation of the applicable CO ambient air quality standards. Because there is no increase in permitted CO emission levels and in past projects (S-1033057 and S-1053208) the applicant provided air quality impact analyses demonstrating that CO emissions would not cause or contribute to a violation of the applicable CO ambient air quality standards, additional CO modeling need not be performed now. District-performed modeling for projects S-1033057 and S-1053208 also indicates that post-project CO emissions will not cause or contribute to a violation of the applicable CO ambient air quality standards. Pursuant to Section 4.6.1 of Rule 2201, the project is therefore exempt from CO emission offset requirements.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. Any new Major Source, which is a new facility that is also a Major Source,
- b. Major Modifications,
- c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- d. Any project which results in the offset thresholds being surpassed, and/or
- e. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Source

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

b. Major Modification

As demonstrated in VII.C.9, this project does not constitute a Major Modification; therefore, public noticing for Major Modification purposes is not required.

c. PE > 100 lb/day

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project; therefore public noticing is not required for this project for Potential to Emit Purposes.

d. Offset Threshold

Public notification is required if the Pre-Project Stationary Source Potential to Emit (SSPE1) is increased from a level below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant.

There is no change in SSPE with this project. Therefore offset, thresholds are not being surpassed. Therefore public noticing is not required for offset purposes. (It is noted that this existing source is above offset thresholds for all pollutants.)

e. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. $SSIPE = SSPE2 - SSPE1$. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively.

There is no change in SSPE with this project. Therefore $SSPE2=SSPE1$ and the SSIPE is zero. Therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any criteria pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and be enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the application of BACT.

The existing PTO contains explicit DELs validated by the use of continuous emission monitors for NO_x and CO and fuel use monitoring for SO_x. These same conditions will be carried onto the ATCs issued with this project. No further conditions are necessary.

E. Compliance Assurance

1. Source Testing

The gas turbine engines are required to be source tested annually for NO_x and CO, and fuel sulfur content per Rule 2201 and Rule 4703, and once per 5-year permit term for PM10.

As compared to the existing DLN system, the DLN1+ system produces lower NO_x without increasing CO emissions. In addition, KRCC is not proposing to lower permitted NO_x or CO emission limits. CEM data from testing of Unit #4 during the experimental research operation (included in the project file) confirms NO_x emissions are no higher than approximately 50% of the permitted level, and CO emissions are approximately 10% of the permitted level. The existing CEMs will continue to be used to document compliance with permit limits. Therefore, continued compliance with permit limits is expected and initial source testing with the DLN1+ will not be required.

2. Monitoring

NO_x and CO emissions are monitored by the use of continuous emissions monitors. This monitoring satisfies Rule 2201 and Rule 4703 requirements. No additional monitoring is proposed or required.

3. Recordkeeping

KRCC is required to maintain records of emissions, source test results, CEM operations, etc. No changes are proposed or required.

4. Reporting

KRCC is required to report deviations, CEM breakdowns, equipment breakdowns, and other malfunctions. No changes are proposed or required.

Rule 2520 Federally Mandated Operating Permits

KRCC has received their initial Title V Permit and is subject to this rule. This project qualifies as a minor modification to the Title V permit.

KRCC has requested to have the ATC issued with a Certificate of Conformity (COC), and a copy of KRCC Compliance Certification is provided in Attachment B. A 45-day EPA project review period is required. Compliance with this rule is expected.

Rule 2540 Acid Rain Program

The existing units are exempt (are not "affected units") from the acid rain program pursuant to 40 CFR 72.6 (b)(1) because they are considered "simple combustion turbines that commenced commercial operation before November 15, 1990." The definition of "simple combustion turbine" is provided in 40 CFR 72.2 as follows:

"Simple combustion turbine means a unit that is a rotary engine driven by a gas under pressure that is created by the combustion of any fuel. This term includes combined cycle units without auxiliary firing. This term excludes combined cycle units with auxiliary firing, unless the unit did not use the auxiliary firing from 1985 through 1987 and does not use auxiliary firing at any time after November 15, 1990."

There is no definition of "combined cycle unit" in 40 CFR 72.2. However, EPA guidance issued by the Acid Rain Division "Do Acid Rain SO₂ Regulations Apply To You", EPA/430-R-94-002 (1994) defines "combined cycle unit" on page 10 as follows:

"In a combustion turbine, air heated from the combustion of fuel causes a turbine to spin in a magnetic field., which, in turn, creates electricity. If the hot air exiting the turbine is captured through as heat recovery steam generator or waste heat boiler, the turbine is considered a combined cycle unit"

Since "simple combustion turbine" definition includes the combined cycle units without auxiliary firing, KRCC is considered a combined cycle unit without auxiliary firing and is therefore exempt under the provisions of 40 CFR 72.6 (b) (1). Compliance is expected.

Rule 4001 NSPS Subpart GG – Standards of Performance for Stationary Gas Turbine)

The turbines are subject to Subpart GG, which limits oxides of nitrogen and sulfur from stationary gas turbines. The current operating permits include NO_x and SO_x limits that meet the standards of Subpart GG. These operating permit limits will not be changed. Also, reporting and notification requirements specified in Subpart A are also contained in the current operating permits.

Rule 4101 Visible Emissions

The current permit unit requirements limit visible emissions greater than 20% opacity (No. 1 Ringelmann) to periods less than three minutes in any one hour period. Continued compliance is expected.

Rule 4102 Nuisance

The current facility has not generated any nuisance complaints. Operation of the turbines without recovering exhaust heat is not expected to result in any nuisance complaints. Continued compliance is expected.

A. California Health & Safety Code 41700

Pursuant to District's Risk Management Policy APR 1905, for any sources with increases in hazardous air pollutant (HAP) emissions, the health risks resulting from such projects must be evaluated. The health risk assessment (HRA) process begins with the calculation of a "prioritization score" using CAPCOA Facility Prioritization Guidelines. If the facility-wide prioritization score is ≤ 1.0 , then the project is approvable without further analysis of the health risks.

There is no change in HAP emissions or dispersion characteristics with this project. Therefore, no further evaluation is required.

Rule 4201 Particulate Matter Concentration

Rule 4201 limits PM emissions from any source operation to less than 0.1 gr/dscf. The current operating permit limits PM emissions to less than 0.0072 gr/scf at 12% CO₂ for each turbine. The proposed modifications will not alter this limit and continued compliance is expected.

Rule 4301 Fuel Burning Equipment

Section 3.1 defines fuel burning equipment as "any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer". The CTGs primarily produce power via mechanical means where the combustion gas is passed across the turbine blades to drive the turbine shaft, which, in turn, drives an electrical generator shaft to produce electricity. Because mechanical means are primarily used to produce electricity, the CTGs do not meet the definition of fuel burning equipment and this rule does not apply.

Rule 4703 Stationary Gas Turbines

This rule limits NO_x and CO emissions from stationary gas turbines. The KRCC turbines are currently in compliance with the Tier 1 emission limits and monitoring requirements of this rule. Future requirements (Tier 2) include lowering of the NO_x limit to 3 ppmv @ 15% O₂ per the Enhanced Option. KRCC has submitted a compliance plan stating that they will comply with the Enhanced Option by 2008 or at the first overhaul, as required by the rule. Compliance is expected.

Rule 4801 Sulfur Compounds

Rule 4801 limits sulfur compound emission to 0.2% (2,000 ppm) dry volume. SO_x emissions from the turbines are based on combusting natural gas with a fuel sulfur content limited by the operating permit at 0.3 gr/100 scf. This fuel S content (assuming 1020 Btu/scf, LHV) results in a SO_x emission concentration of approximately 0.2 ppmvd @ 15% O₂. This is in compliance with the 2,000 ppm limit.

IX. RECOMMENDATION

Issue preliminary decision to approve project and publish preliminary decision. After 45-day EPA comment period, issue ATCs. See Attachment D for ATC conditions.

X. BILLING INFORMATION

Application filing fees have been received.

No change in annual fees result with this project.

Permit Number	Fee Schedule	Fee Rating	Annual Fee
S-88-2-15	3020-8B-A	75,000 kW	\$ 8757
S-88-4-15	3020-8B-A	75,000 kW	\$ 8757

Attachments

- A: Current Implemented ATCs Awaiting Conversion
- B: Detailed SSPE Listing
- C: Compliance Certification
- D: Draft ATCs
- E: Emission Profiles

Attachment A
Current Implemented ATCs Awaiting Conversion
Equipment Description and Conditions

S-88-2-14: 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #2)

S-88-4-14: 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #4)

Conditions for each unit are identical; therefore only one set is included here.

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Y
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Y
3. CTG shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District NSR Rule; 40 CFR 60.333(a); Kern County Rule 407] Y
4. Operator shall not exceed a NO_x emission rate of: $(15 \times \text{EFF}/25)\text{ppmvd @ 15\% O}_2$, under load conditions, excluding thermal stabilization and reduced load periods, where EFF (efficiency) is the higher of EFF1 $\{100\% \times (3412 \text{ Btu/kW-hr}) / (\text{Actual Heat Rate at HHV, Btu/kW-hr})\}$ or EFF2 $\{\text{EFFmfr} \times (\text{LHV}/\text{HHV})\}$ where actual heat rate is a ratio of the heat input to power output taking into account the manufacturer's listed turbine efficiency, HHV is the higher heating value of the fuel, LHV is the lower heating value of the fuel, and EFFmfr is the manufacturer's continuous rated percent efficiency of the gas turbine with air pollution equipment at LHV. An EFF that is less than 25 shall be assigned a value of 25. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703, 5.1.1] Y
5. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 110 (Madera); District Rule 1081] Y

6. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [40 CFR 60.335(d)] Y
7. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Y
8. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b)] Y
9. Nitrogen oxides (NO_x) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O₂) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Y
10. The operator shall provide source test information annually regarding the exhaust gas NO_x concentration corrected to 15% O₂ (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Y
11. The operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703, 5.1.1. [40 CFR 60.332(a),(b) and 4703, 5.1.1] Y
12. Operations during periods of startup and shutdown shall not constitute representative conditions for the purpose of a NO_x performance test nor shall NO_x emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Y
13. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Y
14. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [District Rule 1080, 7.3 and 40 CFR 60.7(b)] Y

15. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Y
16. The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Y
17. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b),(c) and District Rule 4703, 5.0] Y
18. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.4; PSD SJ 84-01, X.D.1] Y
19. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: Rules 404 (Madera), 406 (Fresno), 407 (Kings, Merced, San Joaquin, Stanislaus, Tulare, Kern); District Rule 1081, 4201, 1080, Section 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
20. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
21. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following subsumed requirements: 40 CFR 60.332 (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
22. Operator shall install, operate, and maintain in calibration a system which continuously measures and records control system operating parameters, elapsed time of operation, and exhaust gas NO_x concentration and O₂ or CO₂ concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Y
23. The NO_x and CO₂ CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. The requirements in 40CFR60, Appendix F Procedure 1 shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one CGT (S-88-1, -2, -3 or -4), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three CGT units for which the annual RATA testing is not performed, 3) if any of the CGT units fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each CGT unit. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] N

24. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Y
25. A violation of NO_x emission standards indicated by the NO_x CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Y
26. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0; PSD SJ 84-01, X.D.3] Y
27. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [District Rule 1080, 8.0 and PSD SJ 84-01, X.D.3] Y
28. The written report for each calendar quarter shall also include: C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 84-01, X.E. [District Rule 1080, 8.0; PSD SJ 84-01, X.D.3 and X.D.5.a through e] Y
29. The CTG combustors shall be a dry low NO_x design capable of achieving 16.4 ppm or lower at 15% O₂. [District Rule 4703 and PSD SJ 84-01, X.B] Y
30. Each CTG shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District NSR Rule] Y
31. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District NSR Rule] Y
32. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District NSR Rule] N

33. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District NSR Rule] N
34. Each CTG shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 84-01, X.D.1] Y
35. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO₂. [District NSR Rule] Y
36. HRSG exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] N
37. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District NSR Rule] Y
38. Accurate records of NO_x (as NO₂) and carbon monoxide (CO) flue gas concentrations corrected to 15% O₂, dry and CTG fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Y
39. Emission rates from CTG shall not exceed any of the following: PM₁₀ - 5.0 lb/hr, SO_x (as SO₂) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Y
40. Emission rates from CTG shall not exceed any of the following: PM₁₀ - 120.0 lb/day, SO_x (as SO₂) - 21.6 lb/day, NO_x (as NO₂) - 1,629.6 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201] Y
41. Emission rates from CTG, except during startup and/or shutdown, shall not exceed any of the following: NO_x (as NO₂) - 16.4 ppmvd @ 15% O₂, 67.9 lb/hr on a 3-hr avg, 79.7 lb/hr on a 1-hr avg, or CO - 25 ppmvd @ 15% O₂, 44.0 lb/hr on a 3-hr avg. [District Rule 2201] Y
42. During startup and shutdown, emissions shall not exceed any of the following: 140.0 lb/hr of NO_x on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] N
43. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Y

44. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO_x and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Y
45. Source testing to determine NO_x and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Y
46. Performance testing shall be conducted annually to measure NO_x and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO_x emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A or 20 for Oxygen content of the exhaust gas. The performance tests shall be performed between 90 and 100 percent of peak (or the highest physically achievable) load. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Y
47. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Y
48. Continuous emission monitoring system for NO_x as NO₂ and continuous monitoring system for CO & CO₂ shall serve each CTG flue gas stream during both simple cycle and cogeneration modes, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 84-01, X.D.1 and .2] Y
49. All continuous emissions monitoring systems shall be calibrated and operated during both simple cycle and cogeneration modes according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 84-01 X.D.2] Y
50. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 84-01, X.D.5] Y
51. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 84-01, X.D.3] Y
52. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 84-01, X.D.3] Y

53. Startup and shutdown of CTG, as defined in 40 CFR, Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR 60.8] Y
54. NO₂ and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Y
55. Daily records of NO₂ and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Y
56. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 84-01] Y
57. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in CO emissions above any allowable emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 84-01] Y
58. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 84-01] Y
59. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable Federal, State and local air quality regulations. [PSD SJ 84-01] Y
60. Any requirements established by this permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) because this permit is not an "information collection request" within the meaning of 44 U.S.C. Subsections 3502(4) & (11), 3507, 3512, and 3518. Furthermore, this permit and any information gathering and reporting requirements established by this permit are exempt from OMB review under the PRA because it is directed to fewer than ten persons. [44 U.S.C. Section 3502(4), (11) and 5 CFR Section 1320.5(a) and PSD SJ 84-01] Y

61. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 84-01] Y

62. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10 [PSD SJ 84- 01] Y

63. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 84-01] Y

64. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 84-01] Y

65. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 84-01] Y

66. This facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 84-01] Y

67. All correspondence as required by the PSD permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Compliance Division, SJVUAPCD. [PSD SJ 84-01] Y

68. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Y

69. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (12/17/92), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Y

70. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] N

Attachment B

SSPE Detailed Listing

Detailed SSPE Report

Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	88	0	2						0
S	88	1	13	594804	7884	43800	385440	105120	1
S	88	2	13	594804	7884	43800	385440	105120	1
S	88	3	13	594804	7884	43800	385400	105120	1
S	88	4	13	594804	7884	43800	385400	105120	1
S	88	5	3						0
S	88	8	2						0
S	88	10	1						0
S	511	0	2						0
S	511	1	9	594600	4400	43800	385400	22000	1
S	511	2	9	594600	4400	43800	385400	22000	1
S	511	3	9	594600	4400	43800	385400	22000	1
S	511	4	9	594600	4400	43800	385400	22000	1
S	511	5	2						0
S	511	6	1						0
S	1127	0	0						0
S	1127	17	24	19710	51648	7519	11607	1533	1
S	1127	18	25	19710	51648	7519	11607	1533	1
S	1127	22	26	19710	51465	7665	11498	1643	1
S	1127	25	24	19710	51648	7519	11607	1533	2
S	1127	28	27	9855	51465	7665	11498	1643	1
S	1127	29	23	19710	51465	7665	11498	1643	1
S	1127	30	24	19710	51465	7665	11498	1643	2
S	1127	31	24	19710	51465	7665	11498	1643	2
S	1127	34	20	19710	51648	7519	11607	1533	1
S	1127	35	21	19710	51648	7519	11607	1533	1

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Notes:

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ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

<i>Regio</i>	<i>Facilit</i>	<i>Unit</i>	<i>Mo</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding</i>
S	1127	36	21	19710	51648	7519	11607	1533	2
S	1127	38	25	9855	51465	7665	11498	1643	1
S	1127	39	23	19710	51648	7519	11607	1533	2
S	1127	42	22	19710	51648	7519	11607	1533	2
S	1127	55	22	19710	61648	7519	11607	1533	2
S	1127	57	24	9855	51465	7665	11498	1643	1
S	1127	65	23	19710	51648	7519	11607	1533	1
S	1127	66	28	9855	51465	7665	11498	1643	2
S	1127	67	23	19710	51648	7519	11607	1533	1
S	1127	68	24	19710	51648	7519	11607	1533	1
S	1127	69	26	9855	51465	7665	11498	1643	1
S	1127	70	27	19710	51465	7665	11498	1643	1
S	1127	71	23	33398	51648	7519	11607	1533	3
S	1127	73	22						3
S	1127	112	19	19710	51648	7519	11607	1533	3
S	1127	148	16	48874	10877	32595	81468	89608	0
S	1127	149	16	48874	10877	32595	81468	89608	2
S	1127	159	8					44968	1
S	1127	160	11					40150	1
S	1127	161	17					82381	2
S	1127	162	11					42158	1
S	1127	164	14					43070	1
S	1127	165	9					42924	1
S	1127	166	12					92783	1
S	1127	167	14					154103	1
S	1127	168	13					39201	1
S	1127	169	11					76212	1
S	1127	171	16					177755	2
S	1127	173	12					20878	1

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Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1127	174	15					77052	2
S	1127	176	12					83293	1
S	1127	177	11					128407	1
S	1127	178	12					20878	1
S	1127	179	17	0	0	0	0	81683	0
S	1127	180	14	0	0	0	0	16337	1
S	1127	185	12					39347	1
S	1127	187	10					38033	1
S	1127	201	6					53619	1
S	1127	285	3					9522	0
S	1127	286	3					9522	0
S	1127	290	3					76210	0
S	1127	292	3					40855	0
S	1127	293	3					40855	0
S	1127	294	3					40855	0
S	1127	295	3					30831	0
S	1127	325	4					10763	1
S	1127	326	3					20089	0
S	1127	328	3					58689	0
S	1127	329	3					37460	0
S	1127	330	3					19541	0
S	1127	358	1						0
S	1127	360	3					57302	0
S	1127	365	3					39431	0
S	1127	366	3					7760	0
S	1127	420	5						0
S	1127	427	5						0
S	1127	428	3					10763	0
S	1127	429	3					19797	0

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Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1127	430	3					9339	0
S	1127	432	3					159101	0
S	1127	433	3					18921	0
S	1127	434	3					37825	0
S	1127	435	3					37825	0
S	1127	436	3					189471	0
S	1131	0	1						0
S	1131	62	25	19710	548	2300	15732	3103	3
S	1131	63	20	19710	548	2738	15878	3285	3
S	1131	64	21	19710	548	2738	15878	3285	2
S	1131	65	21	19710	548	2738	15878	3285	2
S	1131	66	20	19710	548	2738	15878	3285	2
S	1131	67	23	19710	548	2738	20258	3285	1
S	1131	68	22	19710	548	2738	20258	3285	1
S	1131	69	20	19710	548	2738	15878	3285	2
S	1131	70	20	19710	548	2738	15878	3285	2
S	1131	73	20	19710	548	2738	15878	3285	2
S	1131	77	21	19710	561735	59130	15878	3285	2
S	1131	78	20	19710	561735	59130	15878	3285	2
S	1131	82	23	19710	561735	59130	15878	* 3285	3
S	1131	94	23	19710	561735	59130	15878	* 3285	3
S	1131	95	20	19710	561735	59130	15878	3285	2
S	1131	98	25	19710	561735	59130	15878	3285	0
S	1131	99	25	19710	561735	59130	15878	3285	1
S	1131	262	4						1
S	1131	351	1						0
S	1131	352	1						0
S	1131	353	1						0
S	1131	359	2						0

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Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1131	448	5					308	0
S	1131	460	4						0
S	1131	492	4						0
S	1131	504	6						0
S	1131	509	4						0
S	1131	518	3						0
S	1131	529	4						0
S	1131	530	4						0
S	1131	531	4						0
S	1131	538	4						0
S	1131	586	4						0
S	1131	592	3						0
S	1131	594	7						1
S	1131	598	16					43216	8
S	1131	599	7						1
S	1131	600	3						0
S	1131	601	3						0
S	1131	602	3						0
S	1131	603	7						1
S	1131	608	18	0	0	0	0	0	4
S	1131	610	7						1
S	1131	613	16	0	0	0	0	0	3
S	1131	615	7						1
S	1131	618	3						0
S	1131	619	7						1
S	1131	620	7						1
S	1131	621	7						1
S	1131	622	3						0
S	1131	623	7						1

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Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1131	625	7						1
S	1131	626	7						1
S	1131	627	7						1
S	1131	628	7						1
S	1131	629	8	0	0	0	0	41574	0
S	1131	630	8	0	0	0	0	41574	0
S	1131	631	7						1
S	1131	632	7						1
S	1131	633	7						1
S	1131	634	7						1
S	1131	635	7						1
S	1131	636	3						0
S	1131	638	8	0	0	0	0	41574	0
S	1131	641	8	0	0	0	0	41574	0
S	1131	650	8	0	0	0	0	41574	0
S	1131	651	8	0	0	0	0	41574	0
S	1131	652	3						0
S	1131	655	3						0
S	1131	663	3						0
S	1131	670	3						0
S	1131	671	3						0
S	1131	674	4						0
S	1131	679	1						0
S	1131	690	4						0
S	1131	691	1						0
S	1131	702	3						0
S	1131	708	3						0
S	1131	716	18						1
S	1131	724	3						0

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Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1131	833	1						0
S	1131	858	10	19710	561735	59130	15878	3285	3
S	1131	859	10	19710	561735	59130	15878	3285	2
S	1131	861	1						0
S	1131	862	1						0
S	1131	877	8	19710	23360	42048	113323	1533	2
S	1131	879	16	19710	30113	7118	20258	1533	2
S	1131	880	11	9855	38362	7008	16644	1533	0
S	1131	881	10	0	0	0	0	0	1
S	1131	883	10	0	0	0	0	0	2
S	1131	884	12	0		0	0	0	4
S	1131	885	15	0	0	0	0	8103	4
S	1131	886	13	0	0	0	0	8103	2
S	1131	891	12	0	0	0	0	8103	2
S	1131	892	12	0	0	0	0	8103	2
S	1131	903	10	0	0	0	0	65043	2
S	1131	908	15	19710	30113	7118	20258	1533	1
S	1131	909	10	0	0	0	0	104536	2
S	1131	912	6	19710	329	7665	20258	1643	0
S	1131	917	9	0	0	0	0	77417	0
S	1131	932	7	0	0	0	0	74314	4
S	1131	941	10	7250	37039	18721	6643	1410	2
S	1131	943	10	10530	7290	6750	2970	630	3
S	1131	944	6	0	0	0	0	41501	3
S	1131	958	7	0	0	0	0	74022	2
S	1131	961	3						0
S	1131	962	3						0
S	1131	963	3						0
S	1131	964	3						0

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<i>Regio</i>	<i>Facilit</i>	<i>Unit</i>	<i>Mo</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding</i>
S	1131	966	10	8672	44326	16863	7950	1686	2
S	1131	970	9	59214	1423	6899	67014	4599	2
S	1131	971	13	59214	1423	6899	67014	4599	1
S	1131	973	10	59214	1423	6885	67014	4590	1
S	1131	974	8	59641	1533	6753	59203	7373	2
S	1131	976	7	7200	1000	1800	400	600	2
S	1131	987	7	19710	28470	24090	12593	2738	1
S	1131	992	7	19710	28470	24638	12593	2738	1
S	1131	993	6	19710	13140	3285	7665	2190	1
S	1131	994	7	19710	33945	24638	10950	2738	1
S	1131	995	9	0	0	0	0	19199	3
S	1131	996	7	0	0	0	0	24711	4
S	1131	997	7	19710	41062	24638	10950	3285	1
S	1131	998	6	19710	16425	3832	7665	3285	1
S	1131	999	6	19710	16425	3832	10950	3285	1
S	1131	1000	6	19710	4380	3832	7665	2190	1
S	1131	1001	7	19710	4380	3285	7483	2263	1
S	1131	1002	6	19710	2738	3285	1095	1643	1
S	1131	1003	6	19710	16425	3732	7665	3285	1
S	1131	1004	6	19710	16425	3832	7665	3285	1
S	1131	1007	6	0	0	0	0	124283	1
S	1131	1008	6	0	0	0	0	83293	2
S	1131	1010	6					0	4
S	1131	1011	6					0	4
S	1131	1012	6					0	4
S	1131	1013	6					0	4
S	1131	1014	4	0	0	0	0	45808	4
S	1131	1016	7	19710	36682	24638	10950	3285	2
S	1131	1017	5	0	0	0	0	32303	1

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Regio	Facilit	Unit	Mo	NOx	SOx	PM10	CO	VOC	Number of Outstanding
S	1131	1019	2						0
S	1131	1031	5	0	0	0	0	24090	1
S	1131	1032	5	0	0	0	0	24090	1
S	1131	1033	10	0	0	0	0	42377	3
S	1131	1035	11	0	0	0	0	28908	4
S	1131	1036	6					174193	1
S	1131	1037	8	40135	10906	28356	58675	87250	1
S	1131	1038	5	65768	3066	6534	74283	17849	1
S	1131	1039	5	65768	3066	6534	74283	17849	1
S	1131	1048	7	0	0	0	0	10257	3
S	1131	1049	3	0	0	0	0	1278	0
S	1131	1050	3	0	0	0	0	621	0
S	1131	1055	1						0
S	1131	1056	1						0
S	1131	1057	1						0
S	1131	1079	6	39291	1280	6399	31569	6826	1
S	1131	1084	1	370	0	0	187	0	1
S	1131	1085	4	8191	18907	3132	44556	7588	0
S	1131	1086	1	5621	4964	1679	30587	475	0
S	1131	1087	1	5621	10512	1679	30660	329	0
S	1131	1088	1	0	0	0	0	0	0
S	1131	1089	1	0	0	0	0	0	0
S	1131	1090	1	0	0	0	0	0	0
S	1131	1091	1	0	0	0	0	0	0
S	1131	1092	1	0	0	0	0	0	0
S	1131	1097	6	0	0	0	0	123	0
S	1131	1099	3						0
S	1131	1100	3						0
S	1131	1101	3						0

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Notes:

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ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

<i>Regio</i>	<i>Facilit</i>	<i>Unit</i>	<i>Mo</i>	<i>NOx</i>	<i>SOx</i>	<i>PM10</i>	<i>CO</i>	<i>VOC</i>	<i>Number of Outstanding</i>
	<i>SSPE</i>			6513932	6909109	1505015	4763628	4771165	

Wednesday, May 10, 2006

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Notes:

Blank values for a particular permit unit do not necessarily reflect zero emissions. For units with blank values, the PE must still be determined based on physical PE or as limited by permit condition.

For permits that show outstanding ATCs, consult PAS ATC Emission Profile records to determine what the highest PE is for each pollutant.

ATCs for new units (e.g. S-XXXX-X-0) must be added in separately.

ERC's for onsite reductions must be added in separately per Rule 2201 as well.

Attachment C
Compliance Certification

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Kern River Cogeneration Company	FACILITY ID: S-- 88
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input checked="" type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Kern River Cogeneration Company	
3. Agent to the Owner: Neil Burgess	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:

Neil Burgess for Neil Burgess 3/28/2006
Signature of Responsible Official Date

Neil E. Burgess

Name of Responsible Official (please print)

Executive Director

Title of Responsible Official (please print)

Attachment D

Draft Authorities to Construct
Equipment Description and Conditions

S-88-2-15: MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #2): REPLACE COMBUSTORS WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTORS AND ASSOCIATED CONTROLS

S-88-4-15: MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS DISCHARGING TO ATMOSPHERE THROUGH A BYPASS STACK WHEN OPERATED IN SIMPLE CYCLE MODE OR THROUGH UNFIRED 450,000 LB/HR HEAT RECOVERY STEAM GENERATOR WHEN OPERATED IN COGENERATION MODE (KRCC UNIT #4): REPLACE COMBUSTORS WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTORS AND ASSOCIATED CONTROLS

Conditions for each unit are identical; therefore only one set is included here.

Note: there are no changes to the permit conditions as compared to ATCs S-88-2-14 and 4-14.

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Y
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Y
3. CTG shall be fired on natural gas only. There shall be no provisions for oil firing. Natural gas used as fuel shall be pipeline quality with sulfur content of 0.3 gr/100 scf or less (0.001% sulfur by weight). [District NSR Rule; 40 CFR 60.333(a); Kern County Rule 407] Y
4. Operator shall not exceed a NO_x emission rate of: $(15 \times \text{EFF}/25)$ ppmvd @ 15% O₂, under load conditions, excluding thermal stabilization and reduced load periods, where EFF (efficiency) is the higher of EFF1 $\{100\% \times (3412 \text{ Btu/kW-hr}) / (\text{Actual Heat Rate at HHV, Btu/kW-hr})\}$ or EFF2 $\{\text{EFF}_{\text{mfr}} \times (\text{LHV}/\text{HHV})\}$ where actual heat rate is a ratio of the heat input to power output taking into account the manufacturer's listed turbine efficiency, HHV is the higher heating value of the fuel, LHV is the lower heating value of the fuel, and EFF_{mfr} is the manufacturer's continuous rated percent efficiency of the gas turbine with air pollution equipment at LHV. An EFF that is less than 25 shall be assigned a value of 25. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703, 5.1.1] Y
5. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 110 (Madera); District Rule 1081] Y

6. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [40 CFR 60.335(d)] Y

7. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Y

8. The HHV and LHV of the fuel shall be determined using ASTM D3588-91, ASTM 1826-88, OR ASTM 1945-81. [40 CFR 60.332(a),(b)] Y

9. Nitrogen oxides (NO_x) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O₂) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Y

10. The operator shall provide source test information annually regarding the exhaust gas NO_x concentration corrected to 15% O₂ (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Y

11. The operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703, 5.1.1. [40 CFR 60.332(a),(b) and 4703, 5.1.1] Y

12. Operations during periods of startup and shutdown shall not constitute representative conditions for the purpose of a NO_x performance test nor shall NO_x emissions in excess of the level of the emission limit shown in this permit during periods of startup and shutdown be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Y

13. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.1.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Y

14. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [District Rule 1080, 7.3 and 40 CFR 60.7(b)] Y

15. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Y
16. The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Y
17. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(b),(c) and District Rule 4703, 5.0] Y
18. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(b); District Rules 2520, 9.4.2 and 4703, 6.2.4; PSD SJ 84-01, X.D.1] Y
19. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: Rules 404 (Madera), 406 (Fresno), 407 (Kings, Merced, San Joaquin, Stanislaus, Tulare, Kern); District Rule 1081, 4201, 1080, Section 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332(c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
20. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
21. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following subsumed requirements: 40 CFR 60.332 (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y
22. Operator shall install, operate, and maintain in calibration a system which continuously measures and records control system operating parameters, elapsed time of operation, and exhaust gas NOx concentration and O2 or CO2 concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Y
23. The NOx and CO2 CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. The requirements in 40CFR60, Appendix F Procedure 1 shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one CGT (S-88-1, -2, -3 or -4), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three CGT units for which the annual RATA testing is not performed, 3) if any of the CGT units fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each CGT unit. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] N

24. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Y

25. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Y

26. The APCO shall be notified no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0; PSD SJ 84-01, X.D.3] Y

27. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO and EPA. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions (computed in accordance with 40 CFR 60.13(h)), nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard. [District Rule 1080, 8.0 and PSD SJ 84-01, X.D.3] Y

28. The written report for each calendar quarter shall also include: C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. Excess emissions shall be defined as any 3-hour period during which the average emissions for CO, as measured by the CEM system, exceeds the emission limit set forth in PSD SJ 84-01, X.E. [District Rule 1080, 8.0; PSD SJ 84-01, X.D.3 and X.D.5.a through e] Y

29. The CTG combustors shall be a dry low NOx design capable of achieving 16.4 ppm or lower at 15% O2. [District Rule 4703 and PSD SJ 84-01, X.B] Y

30. Each CTG shall have a maximum heat input rate of 1020 MMBTU/hr on an LHV basis. Firing rate can be increased upon District witnessed emission sampling demonstration that compliance with emission sampling limits can be achieved at higher fuel rates. [District NSR Rule] Y

31. Permit unit shall include one unfired heat recovery steam generator (HRSG) for gas turbine engine assembly with rated steam output of 450,000 lb/hr at 80% quality steam production. [District NSR Rule] Y

32. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District NSR Rule] N

33. Bypass stack valve preceding each HRSG shall be designed to be gas-tight to the atmosphere when exhaust is discharged through HRSG and shall be designed to be gas-tight to the HRSG when exhaust is discharged through the bypass stack. [District NSR Rule] N
34. Each CTG shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 84-01, X.D.1] Y
35. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO₂. [District NSR Rule] Y
36. HRSG exhaust stack shall be equipped with permanent stack sampling provisions consistent with District Rule 1081, EPA reference Methods 5 and 8 and OSHA requirements. [District Rule 1081] N
37. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District NSR Rule] Y
38. Accurate records of NO_x (as NO₂) and carbon monoxide (CO) flue gas concentrations corrected to 15% O₂, dry and CTG fuel sulfur content shall be maintained and shall be reported as described by District Rule 1080 and upon request. [District Rule 1080] Y
39. Emission rates from CTG shall not exceed any of the following: PM₁₀ - 5.0 lb/hr, SO_x (as SO₂) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Y
40. Emission rates from CTG shall not exceed any of the following: PM₁₀ - 120.0 lb/day, SO_x (as SO₂) - 21.6 lb/day, NO_x (as NO₂) - 1,629.6 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rule 2201] Y
41. Emission rates from CTG, except during startup and/or shutdown, shall not exceed any of the following: NO_x (as NO₂) - 16.4 ppmvd @ 15% O₂, 67.9 lb/hr on a 3-hr avg, 79.7 lb/hr on a 1-hr avg, or CO - 25 ppmvd @ 15% O₂, 44.0 lb/hr on a 3-hr avg. [District Rule 2201] Y
42. During startup and shutdown, emissions shall not exceed any of the following: 140.0 lb/hr of NO_x on a 2-hr avg, 140 lb/hr of CO on a 2-hr avg, or 200 lb/hr of CO on a 1-hr avg. [District Rule 2201] N
43. Each 1-hour period in a 1, 2 or 3-hour average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. The 2-hour average will be compiled from the two most recent 1-hour periods. [District Rule 1080] Y

44. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NOx and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Y
45. Source testing to determine NOx and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Y
46. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A or 20 for Oxygen content of the exhaust gas. The performance tests shall be performed between 90 and 100 percent of peak (or the highest physically achievable) load. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Y
47. Annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1081] Y
48. Continuous emission monitoring system for NOx as NO2 and continuous monitoring system for CO & CO2 shall serve each CTG flue gas stream during both simple cycle and cogeneration modes, shall conform to SJVUAPCD Rule 1080 specifications, shall meet EPA monitoring performance specifications, & shall be operational whenever the turbine is in operation. [District Rule 1080 and PSD SJ 84-01, X.D.1 and .2] Y
49. All continuous emissions monitoring systems shall be calibrated and operated during both simple cycle and cogeneration modes according to EPA guidelines as specified in 40 CFR 60, Appendix B and 40 CFR 52, Appendix E. CEM ppm and lb/hr shall be calculated as a three-hour and a 1-hour average. [District Rule 1080 and PSD SJ 84-01 X.D.2] Y
50. Quarterly continuous emission monitoring system reports shall be submitted to the District, EPA and CEC, as required by EPA regulations as specified in CFR Title 40, Part 58, Appendix B and Part 60 Appendix B. [District Rule 1080 and PSD SJ 84-01, X.D.5] Y
51. Audits of continuous emission monitoring system shall be conducted in accordance with EPA guidelines, witnessed at the District's discretion, and reports shall be submitted to the District within 60 days of such an audit. [District Rule 1080 and PSD SJ 84-01, X.D.3] Y
52. The Relative Accuracy Audit shall be conducted by an independent laboratory in accordance with EPA guidelines, witnessed or authorized by the District. Results shall be submitted to the District within 60 days. [District Rule 1080 and PSD SJ 84-01, X.D.3] Y

53. Startup and shutdown of CTG, as defined in 40 CFR, Subpart A 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR 60.8] Y
54. NO₂ and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Y
55. Daily records of NO₂ and CO emission calculations during days of gas turbine startup/shutdown shall be maintained and such records shall be made readily available for District inspection upon request for a period of five years. [District Rule 1080] Y
56. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 84-01] Y
57. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in CO emissions above any allowable emissions limit stated in this permit. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 84-01] Y
58. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions of this permit, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 84-01] Y
59. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable Federal, State and local air quality regulations. [PSD SJ 84-01] Y
60. Any requirements established by this permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) because this permit is not an "information collection request" within the meaning of 44 U.S.C. Subsections 3502(4) & (11), 3507, 3512, and 3518. Furthermore, this permit and any information gathering and reporting requirements established by this permit are exempt from OMB review under the PRA because it is directed to fewer than ten persons. [44 U.S.C. Section 3502(4), (11) and 5 CFR Section 1320.5(a) and PSD SJ 84-01] Y

61. At such times as specified by the USEPA, permittee shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for CO on the exhaust stack gases and furnish the District, the California ARB and the USEPA a written report of the results of such tests. All performance tests shall be conducted on an annual basis and at the maximum operating capacity of the emissions unit being tested. Upon written request from permittee, and adequate justification, USEPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 84-01] Y

62. Performance tests for the emissions of CO shall be conducted and results reported in accordance with the test methods set forth in 40 CFR 60.8 and 40 CFR 60, Appendix A. The performance tests for the emissions of CO shall be conducted using EPA Methods 1 through 4 and 10 [PSD SJ 84-01] Y

63. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of USEPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from the USEPA. [PSD SJ 84-01] Y

64. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit. [PSD SJ 84-01] Y

65. For performance test purposes, sampling ports, platforms, and access shall be provided by the facility on the emission unit exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 84-01] Y

66. This facility is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 CFR 60). The owner or operator shall meet all applicable requirements of Subparts A and GG of this regulation. [PSD SJ 84-01] Y

67. All correspondence as required by the PSD permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Compliance Division, SJVUAPCD. [PSD SJ 84-01] Y

68. The operator shall perform source testing for PM10 concentration and emission rate once per permit term using EPA Method 5. [40 CFR 60.8 (b) and (c)] Y

69. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (12/17/92), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Y

70. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] N

Attachment E
Emission Profiles

File Window

Permit#: S 88 -2 -15
 Issued: //
 Implemented: //

Last Updated: //

Facility: KERN RIVER COGENERATION CO

Equipment Yes
 Prebaselined: No

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	594804	7884	43800	385440	105120
Daily Emis. Limit (lb/Day):	1629.6	21.6	120.0	1056.0	288.0
Quarterly Net Emissions Change					
1:	0	0	0	0	0
2:	0	0	0	0	0
3:	0	0	0	0	0
4:	0	0	0	0	0
Check if offsets are triggered but exemption applies	<input checked="" type="checkbox"/>				
Offset Ratio:					
Quarterly Offset Amounts					
1:					
2:					
3:					
4:					
SLCID (PTE):					
SLCID (DEL):					

Facility SLC Cancel Save

File Window

Permit #: S 88 -4 -15
 Issued: //
 Implemented: //

Facility: KERN RIVER COGENERATION CO

Last Updated: //

Equipment Yes
 Prebaselined: No

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	594804	7884	43600	385440	105120
Daily Emis. Limit (lb/Day):	1629.6	21.6	120.0	1056.0	288.0
Quarterly Net Emissions Change	1: 0	0	0	0	0
	2: 0	0	0	0	0
	3: 0	0	0	0	0
	4: 0	0	0	0	0
Check if offsets are triggered but exemption applies	<input type="checkbox"/>				
Offset Ratio:					
Quarterly Offset Amounts	1:				
	2:				
	3:				
	4:				
SLCID (PTE):					
SLCID (DEL):					

Facility SLC Cancel Save