



March 7, 2023

Mr. Tim Braly  
Kern River Cogeneration Facility  
PO Box 81438  
Bakersfield, CA 93380

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)**  
**Facility Number: S-88**  
**Project Number: S-1223127**

Dear Mr. Braly:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The modification is to remove the condition requiring PM10 source testing from four cogeneration units under PTOs S-88-1 through '-4 that is not applicable to the units.

The notice of preliminary decision for this project has been posted on the District's website ([www.valleyair.org](http://www.valleyair.org)). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. 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 Erin Scott, Permit Services Manager, at (559) 230-5900.

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585

Mr. Tim Braly  
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Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Clements". The signature is written in a cursive style with a large initial "B".

Brian Clements  
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email  
cc: Laura Yannayon, EPA (w/enclosure) via EPS



## II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
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 (9/20/07)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)  
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. Project Location

This facility is located at 1546 China Grade Loop, in Bakersfield, CA. The cogeneration units are part of the Heavy Oil Central stationary source, ¼ S32, T28S, R28E. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

## IV. Process Description

Cogeneration plants produce high quality steam for injection into the oil producing strata to enhance oil production and to produce electricity for use in the oil field. Kern River sells excess power to Southern California Edison Company.

## V. Equipment Listing

### Pre-Project Equipment Description:

- S-88-1-22:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #1)
  
- S-88-2-23:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR (CTG) WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY 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-88-3-22:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #3)

**S-88-4-24:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #4)

Proposed Modification:

**S-88-1-23:** MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #1): **REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10**

**S-88-2-24:** MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR (CTG) WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY 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): **REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10**

**S-88-3-23:** MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #3): **REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10**

**S-88-4-25:** MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #4): **REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10**

Post-Project Equipment Description:

**S-88-1-23:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #1)

**S-88-2-24:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR (CTG) WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY 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-88-3-23:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #3)

**S-88-4-25:** 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #4)

## **VI. Emission Control Technology Evaluation**

The combustion turbines utilize GE's proprietary Dry Low NOx (DLN1+) technology. The DLN1+ technology employs lean premixed combustion to stage combustion, resulting in reduced NOx formation. The DLN1+ technology is expected to achieve a 3-hour average NOx limit of 3 ppmv, dry at 15% oxygen. No post-combustion emission control for either NO<sub>x</sub> or CO is required with this system.

DLN1+ controls and emissions monitoring sensors allow the gas turbine to maintain a fixed level of NOx emissions by automatically adjusting the gas turbine fuel splits to compensate for ambient temperature changes and/or hardware degradation over time. Additionally, Combustion Dynamics Monitoring (CDM) is used to verify dynamics levels are within acceptable limits whenever the combustion system is running.

No changes in the existing control technology are proposed.

## **VII. General Calculations**

As shown below in Section VIII of this evaluation, this project does not constitute an NSR modification; therefore, calculations are not required.

## **VIII. Compliance Determination**

### **Rule 2201 New and Modified Stationary Source Review Rule**

This rule applies to all new stationary sources and all modifications to existing stationary sources which are subject to the District permit requirements and after construction emit or may emit one or more affected pollutant.

3.25.1 A modification is an action including at least one of the following items:

3.25.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

*This project will not result in a change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.*

3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change

*This project will not result in any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions.*

3.25.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

*This project will not result in an increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation*

3.25.1.4 Addition of any new emissions unit, which is subject to District permitting requirements.

*This project will not result in the addition of any new emissions unit which is subject to District permitting requirements.*

This project is not a Modification and the facility is not a new stationary source; therefore, the project is not subject to Rule 2201 and no further discussion is required.

## **Rule 2520 Federally Mandated Operating Permits**

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a “permit amendment that does not qualify as a minor permit modification or administrative amendment.”

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions. The facility will no longer be required to do source testing for PM10 emissions and submit the associated records to the District, which is a relaxation in monitoring conditions. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

The following conditions will be added to the ATCs to ensure compliance:

- *{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 Rule 2201]*
- *{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]*

### **Rule 4001 NSPS Subpart GG – Standards of Performance for Stationary Gas Turbines**

The provisions of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr, based on the lower heating value of the fuel fired.

The turbines in this project are subject to Subpart GG, which limits oxides of nitrogen and sulfur from stationary gas turbines. The current operating permits include NO<sub>x</sub> and SO<sub>x</sub> limits that meet the standards of Subpart GG. These operating permit limits will not be changed with this proposal. Furthermore, reporting and notification requirements specified in Subpart A are also contained in the current operating permits. The following condition is included on the current PTOs:

- *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]*

Therefore, continued compliance is expected and no further discussion is necessary.

### **Rule 4101 Visible Emissions**

The provisions of this rule apply to any source operation which emits or may emit air contaminants. 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. The following condition will remain on their PTOs:

- *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]*

Continued compliance is expected.



## **Rule 4102 Nuisance**

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

### **California Health & Safety Code 41700 (Health Risk Assessment)**

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

As demonstrated above, there are no increases in emissions associated with this project; therefore, a health risk assessment is not necessary and no further risk analysis is required.

## **Rule 4201 Particulate Matter Concentration**

This rule 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% CO<sub>2</sub> for each turbine. The proposed modifications will not alter this limit. The following condition will remain on the PTOs:

- *Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO<sub>2</sub>. [District Rule 2201]*

Therefore, continued compliance is expected and no further discussion is necessary.

## **Rule 4301 Fuel Burning Equipment**

The provisions of this rule apply to any fuel burning equipment except air pollution control equipment. Fuel burning equipment is defined 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 cogeneration units involved in this project produce power primarily by mechanical means, not through indirect heat transfer. Therefore, this rule does not apply.

## **Rule 4703 Stationary Gas Turbines**

The provisions of this rule apply to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 MW or a maximum heat input rating of more than 3 MMBtu/hr.

The cogeneration units in this project have a rating of 75 MW and this rule applies. The proposed changes will not affect compliance with the requirements of this rule. Therefore, no further discussion is necessary.

### **Rule 4801 Sulfur Compounds**

The provisions of this rule shall apply to any discharge to the atmosphere of sulfur compounds, which would exist as a liquid or gas at standard conditions.

The rule limits sulfur compound emission to 0.2% (2,000 ppm) dry volume. SO<sub>x</sub> 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 or less. This fuel S content (assuming 1020 Btu/scf, LHV) results in a SO<sub>x</sub> emission concentration of approximately 0.2 ppmvd @ 15% O<sub>2</sub>. The modifications in this project do not affect compliance with this rule. Therefore, continued compliance is expected.

### **California Health & Safety Code 42301.6 (School Notice)**

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

### **California Environmental Quality Act (CEQA)**

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

### **Greenhouse Gas (GHG) Significance Determination**

#### District is a Lead Agency & Facility is Subject to Cap-and-Trade

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus, the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principle that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

Industries covered by Cap-and-Trade are identified in the regulation under Section 95811, Covered Entities<sup>1</sup>:

1. Group 1: Large industrial facilities

These types of facilities are subject to Cap and Trade, and the specific companies covered are listed at <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>, Section 95811 (a), under the "Publicly Available Market Information" section (list maintained by the California Air Resources Board).

2. Group 2: Electricity generation facilities located in California, or electricity importers

These types of facilities are subject to Cap and Trade (section 95811, b).

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<sup>1</sup> [https://ww2.arb.ca.gov/sites/default/files/2021-02/ct\\_reg\\_unofficial.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-02/ct_reg_unofficial.pdf)

3. Group 3: Suppliers of Natural Gas, Suppliers of Reformulated Gasoline Blendstock for Oxygenate Blending and Distillate Fuel Oil, Suppliers of Liquefied Petroleum Gas, and Suppliers of Blended Fuels

These entities are subject to Cap and Trade compliance obligations which must cover all fuels (except jet fuels) identified in section 95811 (c) through (f) of the Cap-and-Trade regulation delivered to end users in California, less the fuel delivered to covered entities (group 1 above).

This facility is subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

### **District CEQA Findings**

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that for each emissions unit affected by the project the potential project emission increase is equal to or less than 2 lbs per day per pollutant. Therefore, the potential project emission increase is considerably below all annual criteria emissions CEQA significant thresholds. The activity will occur at an existing facility and involves negligible expansion of the existing or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

### **Indemnification Agreement/Letter of Credit Determination**

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

**IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Pending a successful EPA Noticing period, issue ATCs S-88-1-23, ‘-2-24, ‘-3-23, and ‘-4-25, subject to the permit conditions on the attached draft ATCs in Appendix B.

**X. Billing Information**

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-88-1-23	3020-08A-G	75 MW cogeneration unit	\$12,254
S-88-2-24	3020-08A-G	75 MW cogeneration unit	\$12,254
S-88-3-23	3020-08A-G	75 MW cogeneration unit	\$12,254
S-88-4-25	3020-08A-G	75 MW cogeneration unit	\$12,254

**Appendices:**

- A: Source Test Results Summary
- B: Certificate of Conformity
- C: Current PTOs
- D: Draft ATCs

# **Appendix A:** Source Test Results Summary

**Facility ID: S-88**

**Facility Name: Kern River Cogeneration Company**

**PTO: S-88-1**

Source Test Date	PM10 Emissions Rate Limit (lb/hr)	PM10 Results (lb/hr)	Deviation from limit (%)
2/25/2004	5	4.69	-6
5/6/2008		1.6	-68
5/21/2013		0.74	-85
6/28/2018		4.0	-20

**PTO: S-88-2**

Source Test Date	PM10 Emissions Rate Limit (lb/hr)	PM10 Results (lb/hr)	Deviation from limit (%)
2/24/2004	5	4.29	-14
5/19/2008		4.75	-5
5/22/2013		1.1	-78
6/13/2018		4.31	-14

**PTO: S-88-3**

Source Test Date	PM10 Emissions Rate Limit (lb/hr)	PM10 Results (lb/hr)	Deviation from limit (%)
2/23/2004	5	3.77	-25
4/21/2008		2.1	-58
4/16/2013		3.28	-34
6/14/2018		2.32	-54

**PTO: S-88-4**

Source Test Date	PM10 Emissions Rate Limit (lb/hr)	PM10 Results (lb/hr)	Deviation from limit (%)
2/23/2004	5	13.5	170
4/8/2004		4.01	-20
4/21/2008		4.17	-17
4/17/2013		3.0	-40
6/11/2018		2.08	-58

**Appendix B:**  
Certificate of Conformity





# San Joaquin Valley Air Pollution Control District



## TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

### I. TYPE OF PERMIT ACTION (Check appropriate box)

ADMINISTRATIVE AMENDMENT     MINOR MODIFICATION     SIGNIFICANT MODIFICATION

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

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

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment 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.
- For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

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

*Jay Blackmon*

\_\_\_\_\_  
Signature of Responsible Official

6/9/2022

\_\_\_\_\_  
Date

Jay Blackmon

\_\_\_\_\_  
Name of Responsible Official (please print)

Asset Manager

\_\_\_\_\_  
Title of Responsible Official (please print)

# **Appendix C:** Current PTOs

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-88-1-22

**EXPIRATION DATE:** 08/31/2024

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #1)

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
2. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O<sub>2</sub>, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
3. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
5. 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)] Federally Enforceable Through Title V Permit
6. 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)] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O<sub>2</sub>) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit
20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. The NOx and CO2 CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
23. 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)] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
29. 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 Rule 2201] Federally Enforceable Through Title V Permit
30. 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 Rule 2201] Federally Enforceable Through Title V Permit
31. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
34. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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] Federally Enforceable Through Title V Permit
36. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Accurate records of NOx (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] Federally Enforceable Through Title V Permit
38. Emission rates from CTG shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Emission rates from CTG shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

41. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
42. 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] Federally Enforceable Through Title V Permit
43. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
44. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
45. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. 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] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
55. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

56. 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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68. 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] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-88-2-23

**EXPIRATION DATE:** 08/31/2024

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

## **EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR (CTG) WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY 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)

## **PERMIT UNIT REQUIREMENTS**

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1. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
2. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NO<sub>x</sub> emission rate of 3 ppmvd @ 15% O<sub>2</sub>, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
3. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
5. 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)] Federally Enforceable Through Title V Permit
6. 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)] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NO<sub>x</sub>) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O<sub>2</sub>) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: KERN RIVER COGENERATION FACILITY

Location: HEAVY OIL CENTRAL, 1546 CHINA GRADE LOOP, BAKERSFIELD, CA 93308

S-88-2-23 : Feb 2 2023 9:17AM - PROCOPIIS

10. 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] Federally Enforceable Through Title V Permit
11. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit
20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. The NOx and CO2 CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
23. 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)] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
29. 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 Rule 2201] Federally Enforceable Through Title V Permit
30. 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 Rule 2201] Federally Enforceable Through Title V Permit
31. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
34. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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] Federally Enforceable Through Title V Permit
36. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Accurate records of NOx (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] Federally Enforceable Through Title V Permit
38. Emission rates from CTG shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Emission rates from CTG shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

40. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 3 ppmvd @ 15% O<sub>2</sub>, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O<sub>2</sub>, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
42. 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] Federally Enforceable Through Title V Permit
43. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
44. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
45. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. 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] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

55. 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] Federally Enforceable Through Title V Permit
56. 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

66. 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] Federally Enforceable Through Title V Permit
67. 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)] Federally Enforceable Through Title V Permit
68. 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] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-88-3-22

**EXPIRATION DATE:** 08/31/2024

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #3)

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
2. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O<sub>2</sub>, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
3. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
5. 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)] Federally Enforceable Through Title V Permit
6. 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)] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O<sub>2</sub>) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit
20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. The NOx and CO2 CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
23. 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)] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
29. 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 Rule 2201] Federally Enforceable Through Title V Permit
30. 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 Rule 2201] Federally Enforceable Through Title V Permit
31. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. Each CTG shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
34. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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] Federally Enforceable Through Title V Permit
36. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Accurate records of NOx (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] Federally Enforceable Through Title V Permit
38. Emission rates from CTG shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Emission rates from CTG shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

41. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
42. 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] Federally Enforceable Through Title V Permit
43. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
44. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
45. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. 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] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
55. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

56. 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

68. 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] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-88-4-24

**EXPIRATION DATE:** 08/31/2024

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #4)

## PERMIT UNIT REQUIREMENTS

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1. Combustion turbine generator (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)] Federally Enforceable Through Title V Permit
2. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O<sub>2</sub>, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit
3. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CGT is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
4. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 110 (Madera); District Rule 1081] Federally Enforceable Through Title V Permit
5. 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)] Federally Enforceable Through Title V Permit
6. 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)] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. Nitrogen oxides (NOx) concentrations shall be determined using EPA Method 7E or 20, and oxygen (O<sub>2</sub>) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
9. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit
20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. The NOx and CO2 CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
23. 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)] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. The CGT combustors shall be a dry low NOx design capable of achieving 3 ppm or lower at 15% O2. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
29. 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 Rule 2201] Federally Enforceable Through Title V Permit
30. 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 Rule 2201] Federally Enforceable Through Title V Permit
31. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
34. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO2. [District NSR Rule] Federally Enforceable Through Title V Permit
35. 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] Federally Enforceable Through Title V Permit
36. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Accurate records of NOx (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] Federally Enforceable Through Title V Permit
38. Emission rates from CTG shall not exceed any of the following: PM10 - 5.0 lb/hr, SOx (as SO2) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Emission rates from CTG shall not exceed any of the following: PM10 - 120.0 lb/day, SOx (as SO2) - 21.6 lb/day, NOx (as NO2) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NOx (as NO2) - 3 ppmvd @ 15% O2, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O2, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

41. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
42. 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] Federally Enforceable Through Title V Permit
43. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
44. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
45. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. 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] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
54. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
55. 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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



56. 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

68. 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] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# **Appendix D:** Draft ATCs

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE:** DRAFT

**PERMIT NO:** S-88-1-23

**LEGAL OWNER OR OPERATOR:** KERN RIVER COGENERATION FACILITY  
**MAILING ADDRESS:** PO BOX 81438  
BAKERSFIELD, CA 93380-1438

**LOCATION:** HEAVY OIL CENTRAL  
1546 CHINA GRADE LOOP  
BAKERSFIELD, CA 93308

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #1): REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10

**CONDITIONS**

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 Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
4. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O2, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

S-88-1-23 : Feb 7 2023 3:21PM -- PROCOPIIS : Joint Inspection NOT Required

5. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CTG is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
6. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. 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)] Federally Enforceable Through Title V Permit
9. 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)] Federally Enforceable Through Title V Permit
10. Nitrogen oxides (NOx) 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] Federally Enforceable Through Title V Permit
11. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit

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20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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<sub>x</sub> concentration and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Federally Enforceable Through Title V Permit
24. The NO<sub>x</sub> and CO<sub>2</sub> CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
25. 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)] Federally Enforceable Through Title V Permit
26. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
27. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit
28. 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] Federally Enforceable Through Title V Permit
29. 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] Federally Enforceable Through Title V Permit
30. The CTG combustors shall be a dry low NO<sub>x</sub> design capable of achieving 3 ppm or lower at 15% O<sub>2</sub>. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
31. 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 Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit

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34. 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 Rule 2201] Federally Enforceable Through Title V Permit
35. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
36. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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] Federally Enforceable Through Title V Permit
38. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, 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] Federally Enforceable Through Title V Permit
40. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 5.0 lb/hr, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
41. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 120.0 lb/day, SO<sub>x</sub> (as SO<sub>2</sub>) - 21.6 lb/day, NO<sub>x</sub> (as NO<sub>2</sub>) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 3 ppmvd @ 15% O<sub>2</sub>, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O<sub>2</sub>, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
44. 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] Federally Enforceable Through Title V Permit
45. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
46. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit

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50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. 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] Federally Enforceable Through Title V Permit
54. 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] Federally Enforceable Through Title V Permit
55. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
56. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit

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63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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] Federally Enforceable Through Title V Permit
68. 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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** S-88-2-24

**LEGAL OWNER OR OPERATOR:** KERN RIVER COGENERATION FACILITY  
**MAILING ADDRESS:** PO BOX 81438  
BAKERSFIELD, CA 93380-1438

**LOCATION:** HEAVY OIL CENTRAL  
1546 CHINA GRADE LOOP  
BAKERSFIELD, CA 93308

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR (CTG) WITH GE ENHANCED DRY LOW NOX DLN1+ COMBUSTOR TECHNOLOGY 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): REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10

**CONDITIONS**

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 Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
4. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O2, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

S-88-2-24 : Feb 7 2023 3:22PM -- PROCOPIS : Joint Inspection NOT Required

5. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CTG is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
6. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. 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)] Federally Enforceable Through Title V Permit
9. 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)] Federally Enforceable Through Title V Permit
10. Nitrogen oxides (NOx) 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] Federally Enforceable Through Title V Permit
11. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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<sub>x</sub> concentration and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Federally Enforceable Through Title V Permit
24. The NO<sub>x</sub> and CO<sub>2</sub> CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
25. 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)] Federally Enforceable Through Title V Permit
26. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
27. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit
28. 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] Federally Enforceable Through Title V Permit
29. 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] Federally Enforceable Through Title V Permit
30. The CTG combustors shall be a dry low NO<sub>x</sub> design capable of achieving 3 ppm or lower at 15% O<sub>2</sub>. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
31. 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 Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit

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34. 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 Rule 2201] Federally Enforceable Through Title V Permit
35. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
36. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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] Federally Enforceable Through Title V Permit
38. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, 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] Federally Enforceable Through Title V Permit
40. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 5.0 lb/hr, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
41. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 120.0 lb/day, SO<sub>x</sub> (as SO<sub>2</sub>) - 21.6 lb/day, NO<sub>x</sub> (as NO<sub>2</sub>) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 3 ppmvd @ 15% O<sub>2</sub>, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O<sub>2</sub>, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
44. 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] Federally Enforceable Through Title V Permit
45. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
46. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit

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50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. 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] Federally Enforceable Through Title V Permit
54. 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] Federally Enforceable Through Title V Permit
55. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
56. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit

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63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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] Federally Enforceable Through Title V Permit
68. 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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE:** DRAFT

**PERMIT NO:** S-88-3-23

**LEGAL OWNER OR OPERATOR:** KERN RIVER COGENERATION FACILITY  
**MAILING ADDRESS:** PO BOX 81438  
BAKERSFIELD, CA 93380-1438

**LOCATION:** HEAVY OIL CENTRAL  
1546 CHINA GRADE LOOP  
BAKERSFIELD, CA 93308

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE COGENERATION UNIT WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #3): REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10

**CONDITIONS**

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 Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Combustion turbine generator (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 Rule 2201; 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
4. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O2, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

S-88-3-23 : Feb 7 2023 3:22PM -- PROCOPIS : Joint Inspection NOT Required



5. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CTG is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
6. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. 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)] Federally Enforceable Through Title V Permit
9. 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)] Federally Enforceable Through Title V Permit
10. Nitrogen oxides (NOx) 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] Federally Enforceable Through Title V Permit
11. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit

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20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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<sub>x</sub> concentration and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Federally Enforceable Through Title V Permit
24. The NO<sub>x</sub> and CO<sub>2</sub> CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
25. 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)] Federally Enforceable Through Title V Permit
26. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
27. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit
28. 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] Federally Enforceable Through Title V Permit
29. 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] Federally Enforceable Through Title V Permit
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31. 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 Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit

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34. 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 Rule 2201] Federally Enforceable Through Title V Permit
35. Each CTG shall have a fuel consumption monitor/recorder. [District NSR Rule and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
36. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
37. 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] Federally Enforceable Through Title V Permit
38. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, 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] Federally Enforceable Through Title V Permit
40. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 5.0 lb/hr, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
41. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 120.0 lb/day, SO<sub>x</sub> (as SO<sub>2</sub>) - 21.6 lb/day, NO<sub>x</sub> (as NO<sub>2</sub>) - 552.8 lb/day, VOC - 288.0 lb/day, or CO - 1056.0 lb/day. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. Emission from CTG, except during startup, shutdown, and tuning start-up, shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>) - 3 ppmvd @ 15% O<sub>2</sub>, 12.4 lb/hr on a 3-hr avg, or CO - 25 ppmvd @ 15% O<sub>2</sub>, 44.0 lb/hr on a 3-hr avg. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. During startup, shutdown, and tuning start-up periods, emissions shall not exceed any of the following: 140.0 lb/hr of NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
44. 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] Federally Enforceable Through Title V Permit
45. Daily Emissions for the unit may be determined from the arithmetic mean of three, 40-minute test runs for NO<sub>x</sub> and CO, multiplied by the appropriate factor. [District Rule 2520, 9.4.2 and District Rule 4703] Federally Enforceable Through Title V Permit
46. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. 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] Federally Enforceable Through Title V Permit
54. 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] Federally Enforceable Through Title V Permit
55. NO<sub>2</sub> and CO daily emissions during days of startup/shutdown shall be calculated from natural gas combustion rates and CEM results. [District Rule 1080] Federally Enforceable Through Title V Permit
56. Daily records of NO<sub>2</sub> 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] Federally Enforceable Through Title V Permit
57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit

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63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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] Federally Enforceable Through Title V Permit
68. 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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** S-88-4-25

**LEGAL OWNER OR OPERATOR:** KERN RIVER COGENERATION FACILITY

**MAILING ADDRESS:** PO BOX 81438  
BAKERSFIELD, CA 93380-1438

**LOCATION:** HEAVY OIL CENTRAL  
1546 CHINA GRADE LOOP  
BAKERSFIELD, CA 93308

**SECTION:** 32 **TOWNSHIP:** 28S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 75 MW GENERAL ELECTRIC MODEL 7EA NATURAL GAS-FIRED COMBUSTION TURBINE WITH DRY LOW NOX COMBUSTORS (KRCC UNIT #4): REMOVE CONDITION REQUIRING SOURCE TESTING FOR PM10

**CONDITIONS**

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 Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
3. Combustion turbine generator (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)] Federally Enforceable Through Title V Permit
4. Except during periods exempted in Rule 4703, Section 5.3.1, operator shall not exceed a NOx emission rate of 3 ppmvd @ 15% O2, under load conditions, excluding thermal stabilization, reduced load periods, and tuning start-up periods. [40 CFR 60.332(a)(1) & 60.332 (a)(2) and District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit

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**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

**Brian Clements, Director of Permit Services**

S-88-4-25 : Feb 7 2023 3:22PM -- PROCOPIIS : Joint Inspection NOT Required

5. A tuning start-up shall be defined as "the period after a combustor unit replacement in which dynamic performance testing and corresponding operating optimization set point adjustment of the combustion system of the CTG is performed to meet the limits of this permit and Rule 4703". A tuning start-up period shall not exceed a time period of 12 consecutive hours per occurrence. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
6. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Rule 110 (Madera); District Rule 1081] Federally Enforceable Through Title V Permit
7. 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)] Federally Enforceable Through Title V Permit
8. 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)] Federally Enforceable Through Title V Permit
9. 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)] Federally Enforceable Through Title V Permit
10. Nitrogen oxides (NOx) 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] Federally Enforceable Through Title V Permit
11. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Operations during periods of startup, shutdown, and tuning start-up shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx 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)] Federally Enforceable Through Title V Permit
14. 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] Federally Enforceable Through Title V Permit
15. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown, tuning start-up, 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)] Federally Enforceable Through Title V Permit
16. 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] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. 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] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit

20. 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] Federally Enforceable Through Title V Permit
21. 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] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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<sub>x</sub> concentration and O<sub>2</sub> or CO<sub>2</sub> concentration. [40 CFR 60.334(b),(c) and District Rules 2520, 9.4.2 and 4703] Federally Enforceable Through Title V Permit
24. The NO<sub>x</sub> and CO<sub>2</sub> CEMS shall meet the requirements in 40CFR60, Appendix B Performance Specifications 2 and 3 and Appendix F Procedure 1. [40 CFR 60.334(b)(1) and District Rules 1080, 6.3, 6.5, 6.6, & 7.2, and 4703, 6.2.3] Federally Enforceable Through Title V Permit
25. 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)] Federally Enforceable Through Title V Permit
26. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
27. The APCO shall be notified no later than one hour 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] Federally Enforceable Through Title V Permit
28. 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] Federally Enforceable Through Title V Permit
29. 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] Federally Enforceable Through Title V Permit
30. The CTG combustors shall be a dry low NO<sub>x</sub> design capable of achieving 3 ppm or lower at 15% O<sub>2</sub>. [District Rule 4703 and PSD SJ 85-09, X.B] Federally Enforceable Through Title V Permit
31. 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 Rule 2201] Federally Enforceable Through Title V Permit
32. 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 Rule 2201] Federally Enforceable Through Title V Permit
33. When operating in cogeneration mode, exhaust gas ducting from CTG through HRSG's to the atmosphere shall be gas-tight. [District Rule 2201] Federally Enforceable Through Title V Permit

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34. 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 Rule 2201] Federally Enforceable Through Title V Permit
35. Each CTG shall have a fuel consumption monitor/recorder. [District Rule 2201 and PSD SJ 84-01, X.D.1] Federally Enforceable Through Title V Permit
36. Exhaust gas particulate matter concentration shall not exceed 0.0072 gr/scf calculated at 12% CO<sub>2</sub>. [District NSR Rule] Federally Enforceable Through Title V Permit
37. 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] Federally Enforceable Through Title V Permit
38. Operational records (including but not limited to: fuel characteristics, etc.) shall be maintained by Kern River Cogeneration Company. [District NSR Rule] Federally Enforceable Through Title V Permit
39. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and carbon monoxide (CO) flue gas concentrations corrected to 15% O<sub>2</sub>, 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] Federally Enforceable Through Title V Permit
40. Emission rates from CTG shall not exceed any of the following: PM<sub>10</sub> - 5.0 lb/hr, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.9 lb/hr, or VOC - 12.0 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
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46. Source testing to determine NO<sub>x</sub> and CO emissions and fuel gas sulfur content shall be conducted annually. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Performance testing shall be conducted annually to measure NO<sub>x</sub> and CO emission concentrations using the following methods: EPA Methods 7E or 20 for NO<sub>x</sub> 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. Continuous emission monitoring system for NO<sub>x</sub> as NO<sub>2</sub> and continuous monitoring system for CO & CO<sub>2</sub> 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] Federally Enforceable Through Title V Permit

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50. 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] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
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57. 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] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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] Federally Enforceable Through Title V Permit
68. 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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit

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