

DOCKETED

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CCFC SUTTER ENERGY, LLC

717 TEXAS AVENUE
SUITE 1000
HOUSTON, TX 77002

June 15, 2018

Eric Veerkamp
Compliance Project Manager
Siting, Transmission and
Environmental Protection (STEP Division)
California Energy Commission
1516 Ninth Street, MS-2000
Sacramento, CA 95814

RE: Docket No. 97-AFC-02C: Petition for Modification of AQ-32

Dear Mr. Veerkamp:

Please find the attached Petition for Modification for the Sutter Energy Center. If you have any questions, please contact me at 925-570-0849 or Barbara.McBride@calpine.com.

Sincerely,

/S/

Barbara McBride

Sutter Energy Center

(97-AFC-02C)

Petition for Modification (Revised)

Submitted by

CCFC Sutter Energy, LLC

June 2018

SUTTER ENERGY CENTER
97-AFC-02C
PETITION FOR MODIFICATION (REVISED)

Pursuant to Section 1769 of the California Energy Commission's Siting Regulations, CCFC Sutter Energy, LLC ("CCFC") hereby submits this *Petition for Modification (Revised)* ("Petition") for the Sutter Energy Center ("SEC"), seeking certain changes to enhance operational flexibility.¹

As set forth below, the modification requested herein will not have a significant effect on the environment and will not make changes that would cause the Project to not comply with any applicable laws, ordinances, regulations, or standards ("LORS").

I. Section 1769(a)(1)(A): Description of the proposed modifications, including new language for affected conditions.

The Petition requests changes to Condition AQ-32, necessary to conform SEC's Certification to the facility's Title V Operating Permit as issued by the Feather River Air Quality Management District (FRAQMD) on April 4, 2018. In issuing the Title V Operating Permit, (FRAQMD approved refinements to AQ-32 that provide the operational flexibility needed for SEC to support reliability and integration of intermittent renewable resources. No other Conditions are affected by this Petition.

Condition of Certification AQ-32 should be modified as follows to conform with the Title V Operating Permit:

AQ-32. The following definitions and limitations shall apply:

- (1) CTG startups are defined as the time period commencing with the introduction of fuel flow into the gas turbine and ending at the start of the first hour period when NO_x concentrations do not exceed 2.5 ppmvd at 15% O₂ averaged over 1-hour and the CO concentrations do not exceed 4.0 ppm at 15% O₂ averaged over 1 hour.

¹ At the Staff's request, this Petition updates CCFC's original petition. (TN #: 70201; the "Original Petition".) On February 12, 2016, CCFC submitted a letter requesting that the Original Petition be held in abeyance. (TN #: 210335.) Prior to CCFC's request for the Original Petition to be held in abeyance, the Feather River Air Quality Management District had completed its review of the Original Petition and issued a Final Determination of Compliance ("FDOC") approving the proposed modifications. (TN #: 201984.) This Petition revises, replaces, and supersedes the Original Petition in its entirety.

- (2) For each CTG, a startup shall not exceed 360 consecutive minutes.
- (3) Shutdowns are defined as the time period commencing with a 15 minute period during which the 15 minute average NOx concentrations exceed 2.5 ppmvd at 15% O2 or the 15 minute average CO concentration exceeds 4.0 ppm at 15% O2 and ending when fuel flow to the gas turbine is discontinued.
- (4) For each CTG, a shutdown shall not exceed 60 consecutive minutes.
- (5) The maximum duration of startups ~~per for both~~ CTGs shall be ~~400~~ 800 hours per year and ~~102~~ 204 hours per calendar quarter.
- (6) The maximum duration of shutdowns ~~per for both~~ CTGs shall be ~~300~~ 600 hours per year, and ~~76~~ 152 hours per calendar quarter.

A copy of the Title V Operating Permit is attached hereto as Attachment A. No changes to permitted emissions limits are proposed, and the refinement to AQ-32 does not affect SEC's ability to comply with all applicable LORS.

II. Section 1769(a)(1)(B): Discussion of the necessity for the modifications.

The proposed modification is necessary to conform SEC's Certification to the facility's Title V Operating Permit as issued by the FRAQMD on April 4, 2018.

III. Section 1769(a)(1)(C): Discussion of whether the modification is based on information that was known by the petitioner during the certification proceeding.

The proposed modification is not based upon information that was known during the certification proceeding for the Project.

IV. Section 1769(a)(1)(D): Discussion of whether the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, and explanation of why the change should be permitted.

The modifications to AQ-32 are not based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the Commission's decision certifying the Project.

V. Section 1769(a)(1)(E): Analysis of the impacts the modification may have on the environment, if any, and proposed measures to mitigate any potentially significant adverse impacts.

The proposed modification has been analyzed in the Title V Permit, Attachment A hereto. In issuing the Title V Permit, FRAQMD stated, “The FRAQMD evaluated this air quality Permit to Operate for compliance with FRAQMD, State of California, and federal air quality rules and regulations.” (Attachment A, p. 4.) No changes to permitted emissions limits are proposed.

VI. Section 1769(a)(1)(F): Discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards.

The proposed modification will not impact the Project's ability to comply with all applicable LORS, as confirmed by the Title V Permit. (Attachment A, p. 4.) The refinement to AQ-32 does not affect SEC's ability to comply with all applicable LORS.

VII. Section 1769(a)(1)(G): Discussion of how the modification potentially affects the public.

The proposed modification will not adversely affect the public. No changes to permitted emissions limits are proposed. The modification will not negatively impact air quality or public health. Therefore, there are no potentially significant adverse effects on property owners that will result from the proposed modification.

VIII. Section 1769(a)(1)(H): List of property owners potentially affected by the modification, if any.

The proposed modification will have no potentially significant environmental effects and will be in compliance with applicable LORS. There are no changes to the facility proposed, and no changes to permitted emissions limits are proposed. Therefore, no property owners will be affected by the modification, and a list is not necessary as part of this Petition.

IX. Section 1769(a)(1)(I): Discussion of the potential effect, if any, on nearby property owners, the public and the parties in the application proceeding.

The proposed modification will have no potentially significant environmental effects and will be in compliance with all applicable LORS. Therefore, the proposed changes will have no adverse impacts on property owners, the public, or any parties in the application proceeding.

ATTACHMENT A

TITLE V OPERATING PERMIT FOR THE SUTTER ENERGY CENTER

Feather River Air Quality Management District

Serving the Counties of Yuba and Sutter
541 Washington Avenue
Yuba City, CA 95991
(530) 634-7659 * Fax 634-7660

Christopher D. Brown, AICP
Air Pollution Control Officer

TITLE V FEDERAL OPERATING PERMIT AND TITLE IV ACID RAIN PERMIT FRAQMD PERMIT - P13005 AIRS #0610113005

PERMIT ISSUED:	PERMIT LAST AMENDED:	PERMIT EXPIRES:
April 4, 2018	NA	April 4, 2023

ISSUED TO:

CCFC Sutter Energy, LLC
Sutter Energy Center
5029 South Township Road
Yuba City, CA 95993

PLANT SITE LOCATION:

Sutter Energy Center
5029 South Township Road
Yuba City, CA 95993

RESPONSIBLE OFFICIAL:

Andrew Gundershaug
Plant Manager
(530) 821- 2072

**ALTERNATE RESPONSIBLE
OFFICIAL and SITE CONTACT:**

Michael Buzdas
EHS Specialist
(530) 821-2074

Nature of Business: Electrical Power Production
SIC Code: 4911
NAICS Code: 221112

Reviewed by:

Alamjit Mangat, Air Quality Engineer

Date

Issued by:

Christopher D. Brown, AICP
Air Pollution Control Officer

Date

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I. PERMIT SUMMARY

This permit shall serve as a Permit to Operate pursuant to FRAQMD Rule 4.1 (Permits Required) and FRAQMD Rule 10.3 (Federal Operating Permits).

The FRAQMD evaluated this air quality Permit to Operate for compliance with FRAQMD, State of California, and federal air quality rules and regulations. The following listed rules are those that FRAQMD found to be applicable at the time of permit review, based on the information submitted with the Title V permit application.

Citation	Description	SIP Approval Date	Federally Enforceable
FRAQMD Rule 1.1	Definitions	04-12-1982	Yes
FRAQMD Rule 1.1	Definitions (8-1-2011 amended version)	NA	No
FRAQMD Rule 1.2	Validity	04-12-1982	Yes
FRAQMD Rule 3.0	Visible Emissions	04-12-1982	Yes
FRAQMD Rule 3.2	Particulate Matter Concentration	04-12-1982	Yes
FRAQMD Rule 3.4	Separation of Emissions	04-12-1982	Yes
FRAQMD Rule 3.5	Combination of Emissions	04-12-1982	Yes
FRAQMD Rule 3.6	Sand Blasting	04-12-1982	Yes
FRAQMD Rule 3.6	Abrasive Blasting (06-1991 amended version)	NA	No
FRAQMD Rule 3.10	Sulfur Oxides	04-12-1982	Yes
FRAQMD Rule 3.11	Posting of Permit	04-12-1972	Yes
FRAQMD Rule 3.11	Reduced Sulfur Compounds	NA	No
FRAQMD Rule 3.12	Organic Solvents	04-12-1982	Yes
FRAQMD Rule 3.13	Circumvention	04-12-1982	Yes
FRAQMD Rule 3.14	Solvent Degreasing	04-12-1982	Yes
FRAQMD Rule 3.14	Surface Preparation and Clean-up	04-23-2015	Yes
FRAQMD Rule 3.14	Surface Preparation and Clean-up (08-01-2016 amended version)	NA	No
FRAQMD Rule 3.15	Architectural Coatings	05-03-1982	Yes
FRAQMD Rule 3.15	Architectural Coatings	04-23-2015	Yes

**I. PERMIT SUMMARY
(CONTINUED)**

Citation	Description	SIP Approval Date	Federally Enforceable
FRAQMD Rule 3.16	Fugitive Dust	NA	No
FRAQMD Rule 3.23	Natural Gas-Fired Water Heaters, Small Boilers, and Process Heaters	NA	No
FRAQMD Rule 4.0	General Requirements	04-12-1982	Yes
FRAQMD Rule 4.1	Permits Required	04-12-1982	Yes
FRAQMD Rule 4.2	Existing Emission Sources	04-12-1982	Yes
FRAQMD Rule 4.3	Exemptions from Permit	04-12-1982	Yes
FRAQMD Rule 4.3	Exemptions from Permit (10-01-2007 amended version)	NA	No
FRAQMD Rule 4.4	Standards for Granting Applications	04-12-1982	Yes
FRAQMD Rule 4.4	Standards for Granting Applications (11-1993 amended version)	NA	No
FRAQMD Rule 4.5	Conditional Approval	04-12-1982	Yes
FRAQMD Rule 4.6	Standards for Authority to Construct and Permit to Operate (06-07-2004 amended version)	NA	No
FRAQMD Rule 4.7	Denial of Application	NA	No
FRAQMD Rule 4.8	Public Information	04-12-1982	Yes
FRAQMD Rule 4.9	Action on Applications	NA	No
FRAQMD Rule 4.10	Appeals	NA	No
FRAQMD Rule 4.11	State Ambient Air Quality Standards (08/1991 adopted version)	NA	No
FRAQMD Rule 4.13	Alteration of Permit	04-12-1982	Yes
FRAQMD Rule 4.14	Posting of Permit	04-12-1982	Yes
FRAQMD Rule 4.15	Transfer of Permit	04-12-1982	Yes
FRAQMD Regulation V	Hearing Board Procedures	NA	No
FRAQMD Regulation VI	Variances	NA	No

**I. PERMIT SUMMARY
(CONTINUED)**

Citation	Description	SIP Approval Date	Federally Enforceable
FRAQMD Regulation VII	Fees (not SIP approved, but relevant parts of the regulation are applicable as part of U.S. EPA approval of the FRAQMD Title V program)	11-21-2003	Yes
FRAQMD Regulation VIII	Penalties and Abatement	NA	No
FRAQMD Rule 9.0	Enforcement	NA	No
FRAQMD Rule 9.1	Emission Monitoring	NA	No
FRAQMD Rule 9.2	Records and Reporting	NA	No
FRAQMD Rule 9.3	Tests	NA	No
FRAQMD Rule 9.4	Field Inspection	NA	No
FRAQMD Rule 9.5	Air Pollution Equipment - Scheduled Maintenance	04-12-1982	Yes
FRAQMD Rule 9.6	Equipment Breakdowns	04-12-1982	Yes
FRAQMD Rule 9.7	Permit Actions	NA	No
FRAQMD Rule 9.8	Variance Action	NA	No
FRAQMD Rule 9.9	Notice to Comply	NA	No
FRAQMD Rule 10.1	New Source Review	10-05-2015	Yes
FRAQMD Rule 10.2	Emission Reduction Credit and Banking	NA	No
FRAQMD Rule 10.3	Federal Operating Permits (not SIP approved, but is applicable as part of U.S. EPA approval of the FRAQMD Title V program)	11-21-2003	Yes
FRAQMD Rule 10.4	General Conformity	04-23-1999	Yes
FRAQMD Rule 10.6	New Source Performance Standards	NA	No
FRAQMD Rule 10.7	Toxics New Source Review	NA	No
FRAQMD Rule 10.8	Federal Major Modifications	NA	No
FRAQMD Rule 10.10	Prevention of Significant Deterioration	12-14-2015	Yes

**I. PERMIT SUMMARY
(CONTINUED)**

Citation	Description	SIP Approval Date	Federally Enforceable
FRAQMD Rule 10.11	Permitting Requirements for Stationary Sources Emitting Greenhouse Gases	NA	No
FRAQMD Rule 10.12	Acid Deposition Control (not SIP approved, but is applicable as part of U.S. EPA approval of the FRAQMD Title V program)	NA	Yes
FRAQMD Rule 11.1 and CARB Airborne Toxic Control Measure	State of California Airborne Toxic Control Measure for Chromate Treated Cooling Towers [CCR 93103]	03-09-1989 (a)	Yes
U.S. EPA New Source Performance Standards (NSPS)	General Provisions [40 CFR Part 60 Subpart A (begin at 60.1)]	06-13-2007 (b)	Yes
U.S. EPA New Source Performance Standards (NSPS)	Standards of Performance for Stationary Gas Turbines [40 CFR Part 60 Subpart GG (begin at 60.330)]	02-24-2006 (b)	Yes
U.S. EPA	Chemical Accident Prevention Provisions [40 CFR Part 68 (begin at 68.1)]	04-09-2004 (b)	Yes
U.S. EPA	Protection of Stratospheric Ozone [40 CFR Part 82 (begin at 82.1)]	12-28-2007 (b)	Yes

(a) California Air Resources Board adoption date

(b) U.S. EPA promulgation date

Future changes in prohibitory rules may establish requirements that are more stringent. At the FRAQMD level, these requirements may supersede the conditions listed here. However, for Title V purposes, the federally enforceable requirements are those found in the Title V permit. Federally enforceable provisions of the Title V permit do not change until the Title V permit is revised.

II. FACILITY DESCRIPTION

The following facility description is for informational purposes only and does not contain any applicable requirements.

The Sutter Energy Center facility produces electricity for commercial sale. The facility is located on a 16-acre site located at 5029 South Township Road, Yuba City. The facility operates two combined cycle power blocks. The combined cycle units consist of the following components:

- Two (2) Siemens Westinghouse Model 501F Gas Turbines, each rated at 1,900 MMBTU/hour heat input, natural gas fueled, each with a nominal rating of 185 MW and a maximum rating of 212 MW.
- Two (2) Duct burners, each rated at 170 MMBTU/hour heat input, natural gas fueled.
- Two (2) Heat recovery steam generators.
- One (1) Siemens Westinghouse Model 35-65CC Steam Turbine Generator, with a nominal rating of 180 MW nominal and a maximum rating of 212 MW.
- Two (2) Selective catalytic reduction (SCR) NO_x air pollution control systems.
- Two (2) Oxidation catalyst CO and VOC air pollution control systems.

Support Equipment

- Cooling tower, dry cooling technology.

Emissions Control Technology

An oxidation catalyst system controls VOC and CO emissions from each gas turbine/duct burner combination.

Dry low NO_x combustor technology control NO_x emissions from each gas turbine. Low NO_x burners control NO_x emissions from each duct burner.

A Selective Catalytic Reduction (SCR) system controls NO_x emissions from each gas turbine/duct burner combination.

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL

The information and conditions specified in this section are enforceable by the FRAQMD, U.S. EPA, CARB, and the public.

1. Permit Term

This permit to operate shall be valid for a term of five years from the date of issuance. Permit expiration terminates the stationary source's right to operate unless the source submits a timely and complete Title V permit application for renewal.

[FRAQMD Rule 10.3.F.2.o]

2. Permit Renewal

The permittee shall submit a standard FRAQMD application for renewal of the Title V permit, no earlier than 18 months and no later than six months before the expiration date of the current permit to operate.

[FRAQMD Rule 10.3.D.2.b; 40 CFR 70.5(a)(1)(iii)]

3. Administrative Permit Amendment

The permittee shall submit a written request to the FRAQMD for an administrative permit amendment. The permittee may implement the change addressed in the written request immediately upon submittal of the request.

[FRAQMD Rule 10.3.D.4.a]

4. Minor Permit Modification

After obtaining any required preconstruction permits, the permittee shall submit a standard FRAQMD application for each emissions unit affected by the proposed permit revision that qualifies as a minor permit modification. The emissions unit(s) affected by the proposed permit modification shall not commence operation until the FRAQMD takes final action to approve the permit revision.

[FRAQMD Rule 10.3.D.2.d]

5. Significant Permit Modification

After obtaining any required preconstruction permits, the permittee shall submit a standard FRAQMD application for each emissions unit affected by a proposed permit revision that qualifies as a significant permit modification. Upon request by the FRAQMD, the responsible official shall submit copies of the latest preconstruction permit for each affected emissions unit. The emissions unit(s) affected by the proposed permit modification shall not commence operation until the FRAQMD takes final action to issue the revised permit or until the requirements of FRAQMD Rule 10.3.D.2.c.2 are met.

[FRAQMD Rule 10.3.D.2.c]

6. Permit Modification for a Condition that is Not Federally Enforceable

For any permit modification of a condition that is not federally enforceable, an owner or operator shall submit a written request in accordance with the requirements of FRAQMD Regulation IV.

[FRAQMD Rule 10.3.D.4.b]

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

7. Modification, Revocation or Reopening for Cause

The FRAQMD may modify, revoke, reopen and reissue, or terminate this permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any permit condition.

[FRAQMD Rules 10.3.E.8 and 10.3.F.2.k; 40 CFR 70.6(a)(6)(iii)]

8. Application Content and Correctness of Applications

When submitting an application, the permittee shall submit a complete application as outlined in FRAQMD Rule 10.3 D.3.a.

a. Upon written request of the FRAQMD, the permittee shall supplement any complete application with additional information within the timeframe specified by the FRAQMD.

[FRAQMD Rule 10.3.D.3.b.1]

b. The permittee shall promptly provide additional information in writing to the FRAQMD upon discovery of submittal of any inaccurate information as part of the application or as a supplement thereto, or of any additional relevant facts previously omitted which are needed for accurate analysis of the application.

[FRAQMD Rule 10.3.D.3.b.2.]

c. Intentional or negligent submittal of inaccurate information shall be reason for denial of an application.

[FRAQMD Rule 10.3.D.3.b.3.]

9. Payment of fees

Except as provided in the subsection below, the permittee shall pay an annual supplemental fee for a permit to operate pursuant to FRAQMD Rule 10.3.G as determined by the calculation method in FRAQMD Rule 10.3.G.3, to meet an overall fee rate of \$25 per ton of fee-based potential emissions (CPI adjusted).

[FRAQMD Rule 10.3.G and 40 CFR 70.6(a)(7)]

a. There shall not be a supplemental annual fee if the total annual fee rate paid by the source under FRAQMD Regulation VII and California Health and Safety Code Section 44380 (AB 2588 Toxic Hot Spots) equals or exceeds \$25 per ton of fee-based potential emissions (CPI adjusted). Only those AB 2588 Toxic Hot Spots fees that fund direct and indirect costs associated with activities related to the operating permits program as specified in the 1990 Clean Air Act Section 502(b)(3)(A) are to be used to meet the overall fee rate of \$25 per ton of fee-based potential emissions (CPI adjusted).

[FRAQMD Rule 10.3.G.2 and 40 CFR 70.6(a)(7)]

10. Right of Entry

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

The permittee shall permit entry for the FRAQMD, the Executive Officer of the California Air Resources Board, the U.S. EPA Region 9 Administrator and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the premises where the emission source is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. At mutually agreed upon times, to have access to and copy any records required to be kept under terms and conditions of this permit;
- c. To inspect any equipment, operation, or method required in this permit; and
- d. To obtain samples from the emission source or require samples to be taken.
[FRAQMD Rule 10.3.F.2.j; 40 CFR 70.6(c)(2)]

11. Compliance

The permittee shall comply with all permit conditions.
[FRAQMD Rule 10.3.F.2.k.1; 40 CFR 70.6(a)(6)(i)]

12. Non-Compliance

The non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal.
[FRAQMD Rule 10.3.F.2.k.3; 40 CFR 70.6(a)(6)(i)]

13. Need To Halt or Reduce Activity Not a Defense

The permittee shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for non-compliance with any permit condition.
[FRAQMD Rule 10.3.F.2.k.4; 40 CFR 70.6(a)(6)(ii)]

14. Permit Action Does Not Stay any Permit Condition

A pending permit action or notification of anticipated non-compliance does not stay any permit condition.
[FRAQMD Rule 10.3.F.2.k.5; 40 CFR 70.6(a)(6)(iii)]

15. Property Rights

The permit does not convey property rights or exclusive privilege of any sort.
[FRAQMD Rule 10.3.F.2.k.2; 40 CFR 70.6(a)(6)(iv)]

16. Information Requested

Within a reasonable time, the permittee shall furnish any information requested by the FRAQMD, in writing, for determining:

- a. Compliance with the permit;
- b. Whether or not cause exists for a permit or enforcement action; and

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

- c. Upon request, the permittee shall also furnish to the permitting authority copies of records that are required by the permit. For information claimed to be confidential, the permittee may furnish such records along with a claim for confidentiality.

[FRAQMD Rule 10.3.F.2.k.6; 40 CFR 70.6(a)(6)(v)]

17. Severability

If any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged unconstitutional or invalid, such judgment shall not affect or invalidate the remainder of these conditions.

[FRAQMD Rules 1.2, 4.5, and 10.3.F.2.m]

18. Emergency Provisions

- a. *Definition:* An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[FRAQMD Rule No. 10.3.F.2.i and 40 CFR 70.6(g)(1) SAC 98-01 §IV.B]

- b. The permittee shall demonstrate an emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
- i. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - ii. The emissions did not exceed the following levels:
 - (a) 30 ppm NO_x (1-hour average, corrected to 15% O₂)
 - (b) 20 ppm CO (1-hour average, corrected to 15% O₂)
 - (c) 228 lbs/hour NO_x, (1-hour average)
 - (d) 172 lbs/hour CO (1-hour average)
 - iii. The permitted facility, including the air pollution control equipment and process equipment was being properly operated at the time of the malfunction;
 - iv. Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions;
 - v. The malfunction was not part of a recurring pattern indicative of inadequate design, operation or maintenance;

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

- vi. The malfunction was not caused by improperly or inadequately designed equipment, lack of preventative maintenance, careless or improper operation, or operator error; and
- vii. During the period of the malfunction, the permittee took all reasonable steps to minimize the amount and duration of emissions, including any bypass, that exceeded the emission standards of this permit. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable; reducing the material feed that result in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, the permittee made the repairs in an expeditious fashion when the operator knew or should have known that the source exceeded the applicable emission limits. Off shift labor and overtime must have been utilized to the extent practicable, to ensure that such repairs were made as expeditiously as possible.

[FRAQMD Rule No. 10.3.F.2.I.2 and 40 CFR 70.6(g)(3) SAC 98-01 §IV.B.3]

- c. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[FRAQMD Rule No. 10.3.F.2.I.3 and 40 CFR 70.6(g)(4)]

19. Notification and Reporting of Emergency

- a. The permittee shall notify the FRAQMD and the U.S. EPA within 48 hours of any deviation from permit requirements including those attributable to upset or breakdown conditions. Within fifteen (15) calendar days after an upset or breakdown condition, the permittee shall submit a written report to the FRAQMD, including the following:
 - i. Description of malfunctioning equipment or abnormal operation.
 - ii. The date of initial failure and the date the permittee resumed normal operations.
 - iii. Duration of excess emissions.
 - iv. An estimate of the quantity of excess emissions.
 - v. A statement of the cause of the deviation or failure.
 - vi. Methods used to restore normal operations.
- [FRAQMD Rule No. 10.3.F.2.g and 40 CFR 70.6(a)(3)(iii)(B), SAC 98-01 §IV.A]**
- b. Upon any permit deviation resulting from upset, breakdown, malfunction or other emergency, the permittee, shall submit within fifteen (15) calendar days, contemporaneous operating logs, or other relevant evidence demonstrating that:
 - i. An emergency occurred.

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

- ii. The permittee identifies the cause(s) of the emergency.
- iii. The permittee was properly operating the facility at the time of the emergency.
- iv. The permittee took all reasonable steps to minimize the emissions resulting from the emergency event.
- v. In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred.
[FRAQMD Rule No. 10.3.F.2.I.2 and 40 CFR 70.6(g)(2)]

20. Monitoring Reports

- a. The permittee shall submit to the FRAQMD at least once every six months, unless required more frequently by an applicable requirement, reports of all required monitoring.
 - i. The permittee shall clearly identify all instances of deviations from Title V permit monitoring conditions in such reports.
- b. The reporting periods for the monitoring reports shall be January 01 through June 30 and July 01 through December 31. The permittee shall submit the reports by July 31 and January 31 following each reporting period respectively.
- c. The responsible official must certify all required reports and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
[FRAQMD Rule 10.3.F.2.g.2; 40 CFR 70.6(a)(3)(iii)(A)]

21. Annual Compliance Certification Report

- a. The permittee shall submit to the FRAQMD and U.S. EPA (Air-3, U.S. EPA Region 9) every 12 months, a certification of compliance by the responsible official with all terms and conditions contained in the Title V permit, including emission limitations, standards, and work practices.
- b. The reporting period for the annual compliance certification report shall be January 01 through December 31. The permittee shall submit the report by January 31 following the reporting period.
- c. The Compliance Certification Report shall include the following:
 - i. The identification of each term or condition of the permit that is the basis of the certification and the means of determining compliance with the term or condition;
 - ii. The compliance status and method(s) used to determine compliance for the current time period and over the entire reporting period and whether such method(s) provides continuous or intermittent data; and

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

- iii. Any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to Sections 114(a) and 504(b) of the CAA.
[FRAQMD Rule 10.3.F.2.n; 40 CFR 70.6(b)(5)]

22. Responsible Official Shall Certify

Any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[FRAQMD Rule 10.3.D.3.a.13; 40 CFR 70.5(d)]

23. Facility-Wide General Operating Requirements

At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate all equipment, including the associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

[FRAQMD Rule 4.5; 40 CFR 60.11(d)]

24. Sampling Facilities

The permittee shall provide source-testing ports, platforms, and access ladders that conform to the California Air Resources Board and federal Occupational Health and Safety administration standards.

- a. Safe sampling platform(s),
- b. Safe access to sampling platform(s),
- c. Utilities for sampling and testing equipment,
- d. Sampling ports adequate for test methods applicable to such facility. This includes constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

[40 CFR 60.8(e)]

25. Visible Emissions

Unless otherwise specified in this permit, the permittee shall not discharge into the atmosphere from any source whatsoever any contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one (1) hour that is:

- a. As dark or darker in shade as that designated as No. 2 (or 40% opacity) on the Ringelmann Chart, as published by the United States Bureau of Mines and as determined by U.S. EPA Method 9; or

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

- b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a).
[FRAQMD Rule 3.0]

26. Particulate Concentration

The facility shall not emit into the atmosphere, from any source, particulate matter in excess of 0.3 grains per cubic foot of gas at standard conditions. When the source involves a combustion process, the permittee must calculate the concentration to 12 percent carbon dioxide (CO₂).

[FRAQMD Rule 3.2]

27. Sulfur Oxides

The facility shall not emit into the atmosphere from any single source of emissions whatsoever any sulfur oxides in excess of 0.2 percent by volume (2,000 ppm) collectively calculated as sulfur dioxide (SO₂).

[FRAQMD Rule 3.10]

28. Circumvention

The permittee shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of the State of California Health and Safety Code or the FRAQMD Rules and Regulations. This requirement shall not apply to cases in which the only violation involved is State of California Health and Safety Code Section 41700.

[FRAQMD Rule 3.13]

29. Surface Preparation and Clean-up

- a. This facility is subject to all applicable requirements under District Rule 3.14 – Surface Preparation and Clean-up.
- b. Net surface preparation and clean-up solvent usage at this facility shall not exceed 20 gallons per calendar year. Solvents with a VOC content of <50 g/L do not count towards this limit.
- c. Material Safety Data Sheets for all VOC-containing materials (solvents, coatings, inks, resins) used at this facility shall be kept current and made available to District personnel upon request.
- d. The permittee shall store all VOC-containing materials, whether in their form for intended use or as a waste or used product, including items such as cloth or paper laden with VOC-containing materials, in non-absorbent, non-leaking containers which shall be kept closed at all times, except when in-use, and disposed of in a manner to prevent the evaporation of VOCs into the atmosphere.

III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

[FRAQMD Rule 3.14]

30. Architectural Coating

The permittee shall meet the requirements of FRAQMD Rule 3.15 when applying or contracting the application of any coating to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs.

[FRAQMD Rule 3.15]

31. Accidental Releases

If the permittee is subject to Section 112(r) of the federal Clean Air Act of 1990 and 40 CFR Part 68, the permittee shall:

- a. Register and submit to the EPA the required data related to the risk management plan (RMP) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities and accident prevention regulations promulgated under 40 CFR Part 68 do not limit in any way the general duty provisions under Section 112(r)(1) of the federal Clean Air Act of 1990;
- b. Comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 68.10(a):
 - i. June 21, 1999;
 - ii. Three years after the date on which a regulated substance is first listed under 68.130; or
 - iii. The date on which a regulated substance is first present above a threshold quantity in a process.
- c. Submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68; and
- d. Annually certify compliance with all applicable requirements of Section 112(r) of the federal Clean Air Act of 1990 as part of the required annual compliance certification.

[40 CFR Part 68]

32. Title VI Requirements (Ozone Depleting Substances)

- a. When opening appliances containing CFCs for maintenance, service, repair, or disposal, the permittee must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances containing CFCs must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

**III. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL
(CONTINUED)**

- c. When performing maintenance, service, repair, or disposal of appliances containing CFCs, the permittee must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
[40 CFR Part 82 Subpart F]

IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL

The FRAQMD bases the conditions in this section on conditions contained in previous locally issued operating permits or rules and regulations that are not part of the State Implementation Plan. Pursuant to 40 CFR 70.6(b)(2), the conditions of this section are enforceable by the FRAQMD only and shall not be enforceable by U.S. EPA or any citizen. This section is exempt from compliance certification requirements of 40 CFR 70.6, and administrative requirements for permit issuance and permit review of 40 CFR 70.7 and 70.8.

1. Acceptance of Conditions

The FRAQMD deems acceptance of this Permit to Operate as acceptance of all conditions as specified. Failure to comply with any condition of this permit or the FRAQMD Rules and Regulations shall be grounds for revocation of this permit.

[FRAQMD Rule 4.5]

2. Right to Amend Permit

The FRAQMD reserves the right to amend this permit, if the need arises, in order to ensure the compliance of this facility, and/or to abate any public nuisance.

[FRAQMD Rule 4.5]

3. Permit Not Transferrable

This permit is not transferable from either one location to another, from one piece of equipment to another or from one person to another without prior FRAQMD approval. In the event a new owner assumes the control of this facility, the permittee and new owner shall notify the FRAQMD in writing within ten (10) days of the change of ownership.

[FRAQMD Rule 4.15]

4. Operation in Accordance with Permit Submittal

The permittee shall operate the equipment in compliance with all data and specifications submitted with the application under which this permit was issued. If any provision of this permit is found to be invalid, such finding shall not affect the remaining provisions of this permit.

[FRAQMD Rule 4.5]

5. Payment of Fees

The permittee shall be responsible for the payment of annual fees. In the event of facility closure or change in ownership or responsibility, the new owner shall be responsible for any outstanding and/or current fees.

[FRAQMD Rule 7.6]

6. Right of Entry

The "Right of Entry", as delineated by the California Health and Safety Code Section 41510 of Division 26, shall apply at all times. The permittee shall allow FRAQMD staff access to the plant site and pertinent records at all reasonable times for the purposes of inspections, surveys, collecting samples, obtaining data, reviewing and

IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (CONTINUED)

copying air contaminant emission records, training, and otherwise conducting all necessary functions related to this permit.

[CA Health and Safety Code Section 41510]

7. Permit Condition Familiarity

The operating staff of this facility shall be advised of and be familiar with all the conditions contained in this permit.

[FRAQMD Rule 4.5]

8. Maintain Equipment

The permittee shall maintain the physical integrity of all processes and air pollution control equipment at regular intervals to insure minimal discharge of emissions. The permittee shall not operate the basic equipment without the control equipment attached and operating as designed. The permittee shall follow the equipment manufacturers' recommendations diligently.

[FRAQMD Rule 4.5]

9. Emission Source Tests

The FRAQMD may conduct or require emission source tests on any source at the discretion of the FRAQMD. The permittee shall conduct all tests and calculate all results in accordance with test procedures approved by the FRAQMD.

[FRAQMD Rule 9.3]

10. Permit Required for Additions and Alterations

The permittee shall report any additions, deletions, or alterations of the subject equipment, including a change in the method of operation or a change in the location, to the FRAQMD. Such alterations may require a new Authority to Construct permit.

[FRAQMD Rule 4.1]

11. Copy of Permit Maintained at Facility

The permittee shall maintain this permit or a legible copy at the site. The permit shall be made available on demand to any authorized person.

[FRAQMD Rule 4.14]

12. Nuisance

The facility shall not emit into the atmosphere from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

[CA Health and Safety Code Section 41700]

**IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL
(CONTINUED)**

13. Fugitive Dust

The permittee shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

- a. The use, where possible, of water or chemicals for controlling dust during the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land;
- b. The application of asphalt, California approved oils and emulsion substances, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts; or
- c. Any other means submitted in writing and approved by the FRAQMD.

[FRAQMD Rule 3.16]

14. Surface Preparation and Clean-up

- a. This facility is subject to all applicable requirements under District Rule 3.14 – Surface Preparation and Clean-up.
- b. The permittee shall keep current Safety Data Sheets for all VOC-containing materials (solvents, coatings, inks, resins) used at this facility and make them available to District personnel upon request.
- c. The permittee shall store all VOC-containing materials, whether in their form for intended use or as a waste or used product, including items such as cloth or paper laden with VOC-containing materials, in non-absorbent, non-leaking containers which shall be kept closed at all times, except when in-use, and disposed of in a manner to prevent the evaporation of VOCs into the atmosphere.

[FRAQMD Rule 3.14]

15. Natural Gas-Fired Water Heaters, Small Boilers, and Process Heaters

The permittee shall not install at this facility any natural gas-fired boiler, steam generator, process heater, or water heater with a rated heat input capacity of greater than or equal to 75,000 British Thermal Units per hour (Btu/hr) and less than 1 million Btu/hr unless the unit is certified to meet the emissions requirements established in FRAQMD Rule 3.23.

[FRAQMD Rule 3.23]

16. Air Toxic Hot Spots

- a. This facility is subject to Division 26, Part 6, Chapter 1 Section 44300 et. seq. of the California Health and Safety Code (Air Toxics “Hot Spots” Information and

**IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL
(CONTINUED)**

Assessment Act of 1987). The owner or operator is responsible for complying with all requirements and deadlines set forth in the regulation.

- b. The FRAQMD reserves the right to require the facility to evaluate the health risk, in accordance with the AB2588 Air Toxics “Hot Spots” Emission Inventory Criteria and Guidelines Regulation, if there is a significant change in population, emissions, or emission unit(s) site location, or if new health data becomes available.

[CA Health and Safety Code Section 44300 et. seq.]

17. Portable Engines and Portable Equipment Units

- a. The operation of portable engines and portable equipment units at the facility shall not require modification of this permit provided the permittee verify that each source is registered with the California Air Resources Board or permitted by the FRAQMD.
 - i. This provision shall not apply if the engine or equipment unit is operated in such a way that it supplements the stationary source operation.
 - ii. For the purpose of this permit, “Equipment Unit” means equipment that emits PM₁₀ over and above that emitted from an associated engine.
- b. Portable engines and portable equipment units registered by the California Air Resources Board shall operate pursuant to the conditions of the registration. This permit does not allow operation of the source, such that the operation invalidates the registration.
- c. Portable engines and portable equipment units permitted by the FRAQMD shall operate pursuant to the conditions of the permit.
- d. If a portable equipment unit will be at the facility for more than five days, the permittee shall notify the district in writing within two working days of commencing operations. The notification shall include:
 - i. The registration number of the equipment unit;
 - ii. The name and phone number of the responsible official; and
 - iii. The estimated time that the equipment unit will be located at the facility.
- e. If the permittee utilizes a portable equipment unit, the permittee shall comply with the following recordkeeping and reporting provisions within 30 days after the end of each calendar quarter:
 - i. The dates in which the equipment unit was operated at the facility;
 - ii. The type and quantity of materials processed by the equipment unit; and
 - iii. The emissions for the project, calculated in accordance with the equipment unit’s registration.

[Basis: FRAQMD Rule 4.5]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC**

*The information and conditions specified in this section are enforceable by the
FRAQMD, U.S. EPA, CARB, and the public.*

EQUIPMENT DESCRIPTION:

Gas Turbines #1 and #2 (S-1 and S-3)

Manufacturer: Siemens Westinghouse
Model: 501F
Type: Combined cycle
Emission Control: Steam injection, SCR and Oxidation catalyst
Fuel: Natural gas
Max. Rating: 1,900 MMBTU/hour each
Net Output: 185 MW (nominal)/212 MW (maximum) each

Duct Burners #1 and #2 for the HRSGs (S-2 and S-4)

Manufacturer: Coen
Model: FILE# 40D-13445-1-000
Emission Control: Low NOx combustion design, SCR and Oxidation Catalyst
Fuel: Natural gas
Max. Rating: 170 MMBTU/hour each

Air Pollution Control Systems for (S-1 to S-4) for NOx

Manufacturer: Cormetech
Control Device: SCR (Anhydrous Ammonia)
Venting: Gas Turbine #1 and Duct Burner #1
Gas Turbine #2 and Duct Burner #2

Air Pollution Control Systems for (S-1 to S-4) for VOC and CO

Manufacturer: Camet
Control Device: Oxidation catalyst
Venting: Gas Turbine #1 and Duct Burner #1
Gas Turbine #2 and Duct Burner #2

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

EMISSION LIMIT REQUIREMENTS:

1. The maximum emission concentrations from each gas turbine/duct burner combination shall not exceed the following BACT limits:

[SAC 98-01 §X.E-F; 97-AFC-2C §AQ-33; FRAQMD Rule 10.1]

Pollutant	Maximum Allowable Emission Concentrations: Gas Turbine #1 and Duct Burner #1 Combination (S-1 and S-2) Gas Turbine #2 and Duct Burner #2 Combination (S-3 and S-4) (a)	
	VOC	1 ppmvd at 15% O ₂ (b) (d)
NOx (as NO ₂)	2.5 ppmvd at 15% O ₂ (c)	
SOx (as SO ₂)	1 ppmvd at 15% O ₂ (b)	
CO	4 ppmvd at 15% O ₂ (b)	

- (a) Excluding startups and shutdowns, as defined in Conditions V.13 and V.14.
 (b) Based on a 3-hour rolling average, clock hour basis.
 (c) Based on a 1-hour average, clock hour basis.
 (d) Measured as methane.

2. The maximum hourly mass emissions from each gas turbine/duct burner combination shall not exceed the following limits:

[SAC 98-01 §X.E-G; 97-AFC-2C §AQ-32.11]

Pollutant	Maximum Allowable Mass Emissions from each of: Gas Turbine #1 and Duct Burner #1 Combination (S-1 and S-2) Gas Turbine #2 and Duct Burner #2 Combination (S-3 and S-4)			
	In all modes of operation, except startup and shutdown (lbs/hour)	Startup (lbs/hour)	Startup (lbs/startup)	Shutdown (lbs/shutdown)
VOC	3.51 (a)	16 (b)	59	16
NOx (as NO ₂)	19.1 (b)	175 (b)	680	80
SOx (as SO ₂)	4.02 (a)	3.7 (b)	22.2	3.7
PM ₁₀	11.5 (a)	9 (b)	54	9
CO	34.3 (a)	902 (a)	2,514	100

- (a) Based on 3-hour rolling average, clock hour basis.
 (b) Based on 1-hour average, clock hour basis.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

3. The maximum emissions from all of the following combined equipment shall not exceed the following limits:

[97-AFC-2C §AQ-32.12]

Pollutant	Maximum Allowable Emissions: Gas Turbine #1 and Duct Burner #1 Combination (S-1 and S-2) Gas Turbine #2 and Duct Burner #2 Combination (S-3 and S-4) (a)
	VOC
NOx (as NO ₂)	1,817 lbs/day
SOx (as SO ₂)	179 lbs/day
PM ₁₀	541 lbs/day
CO	6,528 lbs/day

(a) Including startups and shutdowns, as defined in Conditions V.13 and V.14.

4. The maximum emissions from all of the following combined equipment shall not exceed the following limits:

[97-AFC-2C §AQ-32.13-14; FRAQMD Rule 10.1]

Pollutant	Maximum Allowable Emissions: Gas Turbine #1 and Duct Burner #1 Combination (S-1 and S-2) Gas Turbine #2 and Duct Burner #2 Combination (S-3 and S-4) (a)				
	January- March (lbs/quarter)	April- June (lbs/quarter)	July- September (lbs/quarter)	October- December (lbs/quarter)	Annual (tons/year)
VOC	11,850	11,850	11,850	11,850	23.7
NOx (as NO ₂)	102,500	102,500	102,500	102,500	205.0
SOx (as SO ₂)	15,750	15,750	15,750	15,750	31.5
PM ₁₀	46,200	46,200	46,200	46,200	92.4
CO	241,600	241,600	241,600	241,600	483.2

(a) Including startups and shutdowns, as defined in Conditions V.13 and V.14.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

5. HAP emissions from the facility shall not equal or exceed the following limits
[FRAQMD Rule 4.5]

Equipment	Maximum Allowable HAP emissions: (a) (b)	
	Single HAP	Any Combination of HAPs
Gas Turbine #1 Gas Turbine #2 Duct Burner #1 Duct Burner #2	10	25

- (a) Including startups and shutdowns, as defined in Conditions V.13 and V.14.
 (b) The purpose of this limitation is to qualify the gas turbines for the non-applicability of 40 CFR 63 Subpart YYYY - National Emission Standards for Hazardous Air Pollutants for Stationary Gas Turbines.

EQUIPMENT OPERATION REQUIREMENTS:

6. The facility shall install, continuously operate, and maintain the following air pollution controls to minimize emissions. These controls shall be fully operational upon startup of each Gas Turbine.
- a. Dry low-NOx burners
 - b. Selective Catalytic Reduction
 - c. Oxidation Catalyst System
[SAC 98-01 §X.B]
7. 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.
[40 CFR 60.11(d), SAC 98-01 §III]
8. Gas Turbines #1 and #2 exhaust stacks shall exhaust at a height of 145 feet or higher. The maximum diameter of each exhaust stack shall not exceed 18 feet.
[97-AFC-2C §AQ-25]
9. The facility shall exclusively use California PUC pipeline quality natural gas as fuel.
[SAC 98-01 §X.D]
10. The maximum heat input for each gas turbine and duct burner shall not exceed the following limits:
[97-AFC-2C §AQ-31]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

Equipment	Maximum Allowable Heat Input (High Heating Value [HHV] basis)		
	Hourly (MMBTU/hr)	Daily (MMBTU/day)	Yearly (MMBTU/year)
Gas Turbine #1	1,900	45,600	16,644,000
Gas Turbine #2	1,900	45,600	16,644,000
Duct Burner #1	170	4,080	928,200
Duct Burner #2	170	4,080	928,200

11. Each gas turbine shall be limited to 2,000 hours of power augmentation steam injection per calendar year:
[97-AFC-2C §AQ-32.10]

12. Each duct burner shall be limited to 5,460 hours of operation per calendar year:
[97-AFC-2C §AQ-32.9]

13. A gas turbine startup period is defined as the time period commencing with the introduction of fuel flow to the gas turbine and ending at the start of the first 1 hour period when:
 - a. the NO_x concentrations do not exceed 2.5 ppmvd at 15% O₂ averaged over 1 hour; and
 - b. the CO concentrations do not exceed 4.0 ppmvd at 15% O₂ averaged over 1 hour.
[SAC 98-01 §X.E-F; 97-AFC-2C §AQ-32.1]

14. A gas turbine shutdown period is defined as the time period commencing with the start of a 15 minute period during which:
 - a. the 15 minute average NO_x concentration exceeds 2.5 ppmvd at 15% O₂; or
 - b. the 15 minute average CO concentration exceeds 4.0 ppmvd at 15% O₂;
 and ending when the fuel flow to the gas turbine is discontinued.
[97-AFC-2C §AQ-32.3]

15. The duration of a gas turbine's startup period shall not exceed 360 consecutive minutes.
[SAC 98-01 §X.E-F; 97-AFC-2C §AQ-32.2]

16. The duration of a gas turbine's shutdown period shall not exceed 60 consecutive minutes.
[97-AFC-2C §AQ-32.4]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

17. The maximum cumulative hours of startups and shutdowns for both gas turbines shall not exceed the following limits:

[97-AFC-2C §AQ-32.5-6]

Mode of Operation	Maximum Cumulative Hours of Operation in the Specified Mode of Operation for both Gas Turbines	
	hours/quarter	hours/year (a)
Startups	204	800
Shutdowns	152	600

(a) Based on a 12-month rolling average.

MONITORING REQUIREMENTS:

18. The permittee shall install, maintain, and operate the following continuous emissions monitoring (CEM) systems in the exhaust stack of the heat recovery steam generator:

- a. A CEM system to measure stack gas NO_x concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60.13 and 40 CFR Part 60 Appendix B, Performance Specification 2);
- b. A CEM system to measure stack gas O₂ concentrations. The system shall meet EPA monitoring performance specifications (40 CFR Part 60 Appendix B, Performance Specification 3); and
- c. A CEM system to measure stack gas CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR Part 60 Appendix B, Performance Specification 4).

[SAC 98-01 §X.H.1; 97-AFC-2C §AQ-34; 40 CFR 60 Appendix F; 40 CFR 75]

19. The NO_x, CO, and O₂ CEM systems shall have the capability of recording NO_x, CO and O₂ concentrations during all operating conditions, including gas turbine startups and shutdowns.

[97-AFC-2C §AQ-34]

20. A quality assurance/quality control (QA/QC) program for the CEM system shall be developed and maintained. At a minimum, the plan shall conform to 40 CFR Part 75 Appendix B Section 1 for NO_x and O₂ and 40 CFR 60 Appendix F for CO.

[40 CFR 60.13(a), 40 CFR Appendix F and 40 CFR 75 Appendix B]

21. The permittee shall conduct a Relative Accuracy Test Audit (RATA) at least once every year.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

- a. The RATA for the NO_x monitor shall be conducted in accordance with 40 CFR Part 75 Appendix B Section 2.3.
 - i. The RATA may be required semiannually if specified conditions in 40 CFR 75 Appendix B Section 2.3 are not met.
 - b. The RATA for the O₂ monitor shall be conducted in accordance with 40 CFR Part 75 Appendix B Section 2.3.
 - i. The RATA may be required semiannually if specified conditions in 40 CFR 75 Appendix B Section 2.3 are not met.
 - c. The RATA for the CO monitor shall be conducted in accordance with 40 CFR Part 60 Appendix B, Performance Specification 4, Section 3.
[40 CFR 60 Appendix F and 40 CFR 75 Appendix B; 97-AFC-2C §AQ-34;]
22. The permittee shall conduct a Cylinder Gas Audit (CGA) for the CO monitor in three of four calendar quarters, but need not be performed in the same quarter as a RATA. The CGA shall be conducted in accordance with 40 CFR 60 Appendix F.
[40 CFR Part 60 Appendix F]
23. The permittee shall conduct a Linearity Check for the NO_x and O₂ monitors in each calendar quarter. The Linearity Check shall be conducted in accordance with 40 CFR 75 Appendix B.
[40 CFR 75 Appendix B]
24. All audit gases shall have been certified by comparison to National Bureau of Standards (NBS) Standard Reference Materials, NBS/EPA Certified Reference Materials, or EPA Protocol Gases.
 - a. Documentation shall be made available to the FRAQMD upon request containing gas calibration standard information, including an identification number corresponding to the gas cylinder number, gas mixture constituents and concentrations, and gas cylinder fill and expiration dates.
 - b. If the gas vendor does not provide a gas cylinder expiration date, a two (2) year expiration date from the cylinder fill date shall apply.
 - c. Gas calibration standards in use beyond the expiration date are a violation of this permit.
[40 CFR 60 Appendix F and 40 CFR 75 Appendix A]
25. The permittee shall determine and report to the FRAQMD the fuel gas total sulfur and heat content by collecting and analyzing a sample on a monthly basis or by providing monthly certification of the natural gas total sulfur and/or heat content issued by the natural gas distributor.
[97-AFC-2C §AQ-29]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

26. Notwithstanding the provisions of 40 CFR 60.334(h)(1) requiring the monitoring of fuel total sulfur content, the permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the gas turbines, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). The owner or operator shall use one of the following sources of information to make the required demonstration:

- a. The gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
- b. Representative fuel sampling data that show the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in 40 CFR 75 Appendix D Sections 2.3.1.4 or 2.3.2.4 is required.

[NSPS GG - 40 CFR 60.334(h)(3)]

27. For those pollutants that are not directly monitored by a CEMS (VOC, SO_x and PM₁₀), the hourly emissions for each turbine shall be calculated based on the most recently approved FRAQMD emission factors.

- a. The permittee may use source test results to develop new emission factors. The permittee shall submit the new emission factors to the FRAQMD for written approval prior to using.

[97-AFC-2C §AQ-34]

EMISSION TESTING REQUIREMENTS:

28. The permittee shall conduct performance tests for VOC, NO_x, SO_x, PM₁₀, and CO on each gas turbine/duct burner combination every calendar year to verify compliance with Conditions V.1 and V.2 (excluding startup mode and shutdown mode mass emission limits).

[SAC 98-01 §X.C.1]

29. The permittee shall conduct a performance test for VOC on one of the gas turbine/duct burner combinations every 7 years, beginning in 2003, to verify compliance with the startup mode mass emission limits of Condition V.2.

[97-AFC-2C §AQ-35]

30. The following conditions are applicable to each performance test:

- a. Except as provided in this permit, the tests shall conform to U.S. EPA or CARB methodology and procedures. Reference test methods are California Code of Regulations Title 17 Sections 94101 et. seq., 40 CFR Part 60 Appendix A, and 40 CFR Part 51 Appendix M.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

- b. At least 30 days prior to conducting a source test, the project owner shall submit to the FRAQMD and EPA (Attn: AIR 9) for their review and approval, a source test plan to allow time for the development of an approvable performance test plan. The FRAQMD shall approve any deviation from the emission testing requirements prior to testing.
 - c. The permittee shall notify FRAQMD at least 7 days prior to any scheduled source test.
 - d. The permittee shall submit the results of the source test to the FRAQMD within 60 days following testing.
 - e. The FRAQMD may waive annual source testing requirements upon written request and conditioned on an evaluation including, but not limited to, the maintenance of an adequate compliance margin from prior test results.
[SAC 98-01 §X.C.1; 40 CFR 60.8]
31. The gas turbine and duct burner shall be source tested at the maximum firing capacity, defined as $\geq 90\%$ of the heat input capacity achievable at the time of the source test, based on the current ambient and process conditions, to determine the emission rates (lbs/hour) and/or concentrations of the VOC, NO_x, CO, and PM₁₀.
- a. Testing for PM_{2.5} shall be optional, at the discretion of the FRAQMD.
 - b. The permittee shall report the facility operating parameters under which the test is conducted in the test results.
[FRAQMD Rule 4.5]
32. Each performance test shall consist of three separate runs using the applicable test method.
- a. Each run shall be conducted for the time and under the conditions specified in the applicable standard.
 - b. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.
 - c. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may be determined using the arithmetic mean of the results of the two other runs.
[FRAQMD Rule 4.5; 40 CFR 60.8(f)]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

RECORDKEEPING REQUIREMENTS:

33. The permittee shall continuously maintain the following records on site for at least five years from the date the record was created and shall be made available to the FRAQMD upon request.

[40 CFR 60.7, 40 CFR 70.6(c)(1); 97-AFC-2C §AQ-39; FRAQMD Rule 4.5]

Frequency	Information to be Recorded
Upon occurrence	<p>a. Occurrence and duration of any:</p> <ul style="list-style-type: none"> i. Startup, shutdown or malfunction of a gas turbine or duct burner and the duration of the occurrence. ii. Malfunction of the air pollution control equipment. iii. Periods during which a continuous monitoring system or monitoring device is inoperative. iv. Corrective actions taken. [40 CFR 60.7(b)] <p>b. Measurements of each CEMS, recorded in a permanent form, including:</p> <ul style="list-style-type: none"> i. CEMS performance evaluations. ii. CEMS or monitoring device calibration checks. iii. CEMS adjustments and maintenance; and iv. All other information required by 40 CFR 60. [SAC 98-01 §H.2] <p>c. In the event of a breakdown, malfunction, or other emergency, the permittee shall retain properly signed, contemporaneous operating logs, or other relevant evidence that:</p> <ul style="list-style-type: none"> i. An emergency occurred. ii. The permittee identified the cause(s) of the emergency. iii. The facility was being properly operated at the time of the emergency. iv. The permittee took all reasonable steps to minimize the emissions resulting from the emergency event. [FRAQMD Rule 10.3.F.2.I.2.e; 40 CFR 70.6(g)(2)]

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

Frequency	Information to be Recorded
When a source test is performed	<p>d. Records shall be maintained of all monitoring and support information required by any applicable federal requirement, including:</p> <ul style="list-style-type: none"> i. Date, place, and time of sampling. ii. The date(s) analyses were performed. iii. The company or entity that performed the analyses. iv. The analytical techniques or methods used. v. Operating conditions at the time of sampling. vi. Results of the analysis. <p align="center">[FRAQMD Rule 10.3.F.2.f; 40 CFR 70.6(a)(3)(ii)]</p>
Hourly	<ul style="list-style-type: none"> e. Natural gas fuel consumption of each gas turbine and duct burner. (MMBTU/hour) f. NOx emission concentration from each gas turbine/duct burner combination. (ppmvd at 15% O₂, 1 hour average, clock hour basis) g. CO emission concentration from each gas turbine/duct burner combination. (ppmvd at 15% O₂, 3 hour rolling average, clock hour basis) h. VOC, NOx, SOx, PM₁₀ and CO hourly mass emissions from Gas Turbine #1/Duct Burner #1 combination and Gas Turbine #2/Duct Burner #2 combination. <p>(NOx lbs/hour based on 1 hour average, clock hour basis) (VOC, SOx, PM₁₀, and CO lbs/hour based on 3 hour rolling average, clock hour basis)</p> <ul style="list-style-type: none"> i. For those pollutants directly monitored (NOx and CO), the hourly emissions will be from the required CEM system. ii. For those pollutants that are not directly monitored (VOC, SOx, and PM₁₀), the hourly emissions shall be calculated based on the most recently approved FRAQMD emission factors for the emission unit. <ul style="list-style-type: none"> i. The portion of the hour that gas turbine power augmentation steam injection was conducted for each gas turbine. j. Hourly electrical production. (MW)
Daily	<ul style="list-style-type: none"> k. VOC, NOx, SOx, PM₁₀, and CO daily mass emissions from Gas Turbines #1 and #2 and Duct Burners #1 and #2 combined. (lbs/day)

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

Frequency	Information to be Recorded
Quarterly	<ul style="list-style-type: none">l. VOC, NO_x, SO_x, PM₁₀, and CO quarterly mass emissions from Gas Turbines #1 and #2 and Duct Burners #1 and #2 combined (lbs/quarter)m. The cumulative hours of startup for the calendar quarter for each gas turbine. (hours of startup/calendar quarter)n. The cumulative hours of shutdown for the calendar quarter for each gas turbine. (hours of shutdown/calendar quarter)
Yearly	<ul style="list-style-type: none">o. VOC, NO_x, SO_x, PM₁₀, and CO annual mass emissions from Gas Turbines #1 and #2 and Duct Burners #1 and #2 combined. (tons/year)p. The cumulative hours for the calendar year that gas turbine power augmentation steam injection was conducted for each gas turbine. (hours/year)q. The cumulative hours for the calendar year that natural gas fuel was combusted in each of the duct burners.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

REPORTING REQUIREMENTS:

34. For each calendar quarter, the facility shall submit to the FRAQMD a written report within 30 days of the end of the reporting period. Each report shall contain the following information, as specified in the table below:

[40 CFR 60.7; SAC 98-01 §X.H.4.a-b; 97-AFC-2C §AQ-40]

Frequency	Information to be Reported
Quarterly Submitted by: Jan 31 Apr 30 Jul 31 Oct 31 for the previous calendar quarter	a. Whenever a CEMS is inoperative, except for zero and span checks: <ul style="list-style-type: none"> i. Date and time of non-operation of the CEMS. ii. Nature of the CEMS repairs or adjustments. b. Whenever an emission occurs as measured by the required CEMS that is in excess of any emission limitation: <ul style="list-style-type: none"> i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) and any conversion factors used. ii. Date and time of the commencement and completion of each period of excess emissions. iii. Periods of excess emissions due to startup, shutdown, and malfunction shall be specifically identified. iv. The nature and cause of any malfunction, if known, or the best possible cause of any malfunction if not specifically known. v. The corrective action taken or preventive measures adopted. c. If there were no excess emissions or the CEM system has not been inoperative, repaired, or adjusted for a calendar quarter such information shall be stated in the report. <ul style="list-style-type: none"> d. VOC, NO_x, SO_x, PM₁₀ and CO hourly mass emissions from Gas Turbine #1/Duct Burner #1 combination and Gas Turbine #2/Duct Burner #2 combination. e. VOC, NO_x, SO_x, PM₁₀ and CO daily mass emissions from Gas Turbines #1 and #2 and Duct Burners #1 and #2 combined. (lbs/day) f. For each gas turbine, the quarterly startup, shutdown, and operating hours. <ul style="list-style-type: none"> i. Include duration of each startup and shutdown, ii. Include rolling 12-month average for duration of startups and shutdowns. g. Hourly steam production to the steam turbine (lb steam/hour) h. Hourly steam injection to each gas turbine (lb steam/hour) i. Hourly electrical production (MW)

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
 EQUIPMENT SPECIFIC
 (CONTINUED)**

Frequency	Information to be Reported
Quarterly	<u>Report in 4th quarter report only</u>
Submitted by: Jan 31 Apr 30 Jul 31 Oct 31	j. VOC, NO _x , SO _x , PM ₁₀ and quarterly and annual mass emissions from Gas Turbines #1 and #2 and Duct Burners #1 and #2 combined. (lb/quarter, tons/year)
for the previous calendar quarter	k. For each gas turbine and each duct burner, the hourly, daily, and yearly fuel use. (MMBTU/time period [HHV])
	l. For each gas turbine, the quarterly and yearly number of power augmentation steam injection hours.

PERMIT SHIELD:

35. Compliance with the specified conditions of the Title V permit shall be deemed compliance with the following subsumed requirements:

[U.S. EPA Title V White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program]

Title V Permit Condition	Subsumed requirement
V.2	FRAQMD Rule 3.2 - Particulate Matter Concentration
V.2, V.9	FRAQMD Rule 3.10 - Sulfur Oxides
V.1, V.2, V.33, V.34	40 CFR 60 Subpart Db - NSPS for Small Industrial - Commercial - Institutional Steam Generating Units (amended 06-13-2007)
V.1, V.2, V.9	40 CFR 60 Subpart GG - Standards of Performance for Stationary Gas Turbines (amended 02-24-2006)
V.33, V.34	40 CFR 60.7(c) – Notification and Recordkeeping, semi-annual excess emissions reporting and monitoring report to the Subsumed requirements. (amended 02-12-1999)

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

ACID RAIN PERMIT:

The FRAQMD issues the requirements specified under this subsection in accordance with Title IV and Title V of the federal Clean Air Act, and the requirements are enforceable by the FRAQMD, the U.S. EPA and the public.

36. The permittee shall comply with all the applicable requirements of the Acid Rain Permit Application located in Attachment D of this permit.
[FRAQMD Rule 10.12]
37. This permit incorporates the definitions of terms in 40 CFR §72.2.
[FRAQMD Rule 10.12]
38. The Acid Rain Permit Application contained in Attachment D shall be in effect until the expiration of this permit.
[FRAQMD Rule 4.5]
39. A timely renewal application is an application that the FRAQMD receives at least six months prior to the permit expiration date.
[FRAQMD Rule 4.5]
40. The Title V permit shall take precedence in the event of conflicting requirements between the Acid Rain Permit Application and the Title V permit conditions.

PREVENTION OF SIGNIFICANT DETERIORATION:

The FRAQMD issues the requirements specified under this subsection in accordance with Title 40 of the Code of Federal Regulations Part 52.21, and the requirements are enforceable by the FRAQMD, the U.S. EPA and the public.

41. The permittee shall comply with all applicable requirements of the Approval to Construct/Modify a Stationary Source, hereby known as a Prevention of Significant Deterioration (PSD) permit, located in Attachment E of this permit.
[FRAQMD Rule 10.10, 40 CFR 52.21]
42. This permit incorporates the definitions of terms in 40 CFR §52.21.
[FRAQMD Rule 10.10, 40 CFR 52.21]
43. The PSD permit contained in Attachment E shall be in effect until the time specified in Condition I of the permit.
[FRAQMD Rule 10.10, 40 CFR 52.21]
44. The Title V permit shall take precedence in the event of conflicting requirements between the PSD permit conditions and the Title V permit conditions.

**V. FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS:

46. The permittee shall surrender (and has surrendered - See Conditions V.47-V.49) ERCs to the FRAQMD to offset the following amount of emissions:
[97-AFC-2C §AQ-41]

Equipment: Gas Turbines #1 and #2 Duct Burners #1 and #2	Amount of Emission Offsets for which ERCs are to be Surrendered (lbs/quarter)			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
VOC	11,850	11,850	11,850	11,850
NOx	102,500	102,500	102,500	102,500
PM ₁₀	46,200	46,200	46,200	46,200

47. The following VOC ERCs have been surrendered to the FRAQMD to comply with the VOC emission offset requirements, as stated in Condition V.46:

See Attachment A

48. The following NOx ERCs have been surrendered to the FRAQMD to comply with the NOx emission offset requirements, as stated in Condition V.46:

See Attachment B

49. The following PM₁₀ ERCs have been surrendered to the FRAQMD to comply with the PM₁₀ emission offset requirements, as stated in Condition V.46:

See Attachment C

**VI. NON-FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC**

The information and conditions specified in this section are enforceable by the FRAQMD only.

EMISSION LIMIT REQUIREMENTS:

1. The concentration of ammonia (NH₃) emissions from each gas turbine/duct burner combination shall not exceed the following limit:

[97-AFC-2C §AQ-37; FRAQMD Rule 4.5]

Pollutant	Maximum Allowable Emission Concentration from each of: Gas Turbine #1 and Duct Burner #1 Combination and Gas Turbine #2 and Duct Burner #2 Combination
Ammonia (NH ₃)	10 ppmv at 15% O ₂ (a) (b)

- (a) Excluding startups and shutdowns, as defined in Conditions V.13 and V.14.
- (b) Based on source testing conducted, as required in VI.3.

2. The maximum hourly mass emissions from each gas turbine/duct burner combination shall not exceed the following limit:

[97-AFC-2C §AQ-37; FRAQMD Rule 4.5]

Pollutant	Maximum Allowable Hourly Mass Emissions from each of: Gas Turbine #1 and Duct Burner #1 Combination and Gas Turbine #2 and Duct Burner #2 Combination
Ammonia (NH ₃)	25 lbs/hour (a) (b)

- (a) Excluding startups and shutdowns, as defined in Conditions V.13 and V.14.
- (b) Based on 3-hour rolling average, clock hour basis.

3. The potential to emit (PTE) for greenhouse gases (GHGs) at the Sutter Energy Center facility is shown below.

[FRAQMD Rule 10.11, 40 CFR 52.21]

Sutter Energy Center Greenhouse Gas Potential to Emit	
GHG Pollutant	Facility PTE (tons/year) (a)
CO ₂	2,055,559
CH ₄	38.74
N ₂ O	3.87
Total CO₂e	2,057,682

- (a) Calculated using natural gas factors from U.S. EPA's Emissions Factors for Greenhouse Gas Inventories (11-19-2015)

**VI. NON-FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

EMISSION TESTING REQUIREMENTS

4. The permittee shall perform an ammonia (NH₃) source test of the gas turbine and duct burner combinations every year to verify compliance to verify compliance with Conditions VI.1 and VI.2 above.
 - a. The permittee shall submit a source test plan to the FRAQMD for approval at least 30 days prior to the scheduled test date.
 - b. The permittee shall notify the FRAQMD at least 7 days prior to the source testing date.
 - c. During the source test(s), the facility shall operate the gas turbine and duct burner combination at the maximum firing capacity, defined as $\geq 90\%$ of the heat input capacity achievable at the time of the source test, based on the current ambient and process conditions. The permittee shall report the ambient and process conditions used to determine the maximum firing capacity in the test report.
 - d. The permittee shall submit the source test results to the FRAQMD within 60 days after the completion of the source test.
 - e. The FRAQMD may waive annual source testing requirements for ammonia upon written request and conditioned on an evaluation including, but not limited to, the maintenance of an adequate compliance margin from prior test results.
[97-AFC-2C §AQ-36; FRAQMD Rules 4.5 and 9.3]

RECORDKEEPING REQUIREMENTS:

5. The permittee shall continuously maintain the following records on site for at least five years from the date the record was created and the records shall be made available to the FRAQMD upon request.
[FRAQMD Rule 4.5]

Frequency	Information to be Recorded
Hourly	a. Ammonia injection rate to each of the SCR systems. (lbs/hour)

**VI. NON-FEDERALLY ENFORCEABLE REQUIREMENTS -
EQUIPMENT SPECIFIC
(CONTINUED)**

REPORTING REQUIREMENTS:

6. For each calendar quarter, the facility shall submit to the FRAQMD a written report within 30 days of the end of the reporting period. Each report shall contain the following information, as specified in the table below:

[FRAQMD Rule 4.5]

Frequency	Information to be Reported
Quarterly Submitted by: Jan 31 Apr 30 Jul 31 Oct 31 for the previous calendar quarter	a. Ammonia injection rate to each of the SCR systems. (lbs/hour)

VII. INSIGNIFICANT EMISSION UNITS

Insignificant emissions units may be supplemented, replaced, or modified with identical or non-identical equipment without notice provided that the New Source Review permitting requirements for the equipment have not changed, as defined in current FRAQMD or federal rules.

EXEMPT EQUIPMENT	EQUIPMENT DESCRIPTION	BASIS FOR EXEMPTION
Utility carts, man-lifts, fork lifts, on-road vehicles, skid steer loaders	Vehicles and Mobile Equipment	Rule 4.3.a and 4.3.g
Ammonia Tank 12,000 gallon (regulated only for RMP CAA §112r) 19.5% aqueous	Any valves, flanges, and unvented (except for emergency pressure relief valves) pressure vessels	Rule 4.3.h Rule 10.3 Attachment 1 – B.1
Air conditioning and office heating	HVAC equipment < 60,000,000 BTU/hr	Rule 4.3.d and 4.3.e Rule 10.3 Attachment 1 - B.2.d
Air cooling system	Air intake chiller < 10,000 gpm	Rule 4.3.d Rule 10.3 Attachment 1 - B.3
Turbine lube oil tanks	Turbine lube oil tanks (vapor pressure < 1.5 psig)	Rule 4.3.h Rule 10.3 Attachment 1 - B.7.d
Various oil tanks, vessels, pipelines	Turbine lube and transformer oil	Rule 4.3.h Rule 10.3 Attachment 1 – B.8
Natural gas supply lines, valves, flanges, compressors.	Any valves, flanges, and unvented (except for emergency pressure relief valves) pressure vessels	Rule 4.3.h Rule 10.3 Attachment 1 – B.11
Solvent cleaning tank	< 55 gallon capacity	Rule 4.3.h Rule 10.3 Attachment 1 - B.15
Brazing, welding, soldering associated with maintenance.	Maintenance equipment	Rule 4.3.h Rule 10.3 Attachment 1 – B.17
Electric water boiler	Electric water recycling boiler	Rule 4.3.h Rule 10.3 Attachment 1 – B.1

VIII. ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

Acronyms, abbreviations and units of measure used in this permit are defined as follows:

CAA

The federal Clean Air Act

CARB

California Air Resources Board

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon monoxide

CO₂

Carbon dioxide

ERC

Emission Reduction Credits

FRAQMD

Feather River Air Quality Management District

Federally Enforceable

All limitations and conditions which are enforceable by the Administrator of the U.S. EPA including those requirements developed pursuant to 40 CFR Part 51, Subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (HAP) and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under a U.S. EPA approved program that have been incorporated into the California SIP.

GHGs

Greenhouse gases – The air pollutant defined in 40 CFR 86.1818-11(a) as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

HAP

Hazardous Air Pollutant – Any air pollutant listed in or pursuant to Section 112(b) of the CAA.

VIII. ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE (CONTINUED)

NESHAP

National Emission Standards for Hazardous Air Pollutants (see 40 CFR Parts 61 and 63).

NO_x

Nitrogen oxides

NSPS

New Source Performance Standards. U.S. EPA standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the federal Clean Air Act and implemented by 40 CFR Part 60.

O₂

Oxygen

PM

Particulate matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns.

PSD

Prevention of Significant Deterioration is a construction permitting program for new major facilities and major modifications to existing major facilities located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

ROG

Reactive organic gases

SIP

State Implementation Plan. CARB and FRAQMD programs and regulations approved by U.S. EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act.

SO₂

Sulfur dioxide

Title V

**VIII. ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE
(CONTINUED)**

Title V of the federal Clean Air Act. Title V requires the FRAQMD to operate a federally enforceable operating permit program for major stationary sources and other specified sources.

U.S. EPA

The federal Environmental Protection Agency

VOC

Volatile Organic Compounds

UNITS OF MEASURE:

bhp	=	Brake horsepower
BTU	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inch
kg	=	kilogram
max	=	maximum
m ²	=	square meter
min	=	minute
mm	=	millimeter
MM	=	million
ppmv	=	parts per million by volume
ppmw	=	parts per million by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
quarter	=	calendar quarter
scfm	=	standard cubic feet per minute
yr	=	calendar year

**ATTACHMENT A
 VOC ERCS PROVIDED**

The following VOC ERCS have been provided to the FRAQMD to comply with the requirements of Condition V.46:

ERC Certificate	Face Value of VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project VOC Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel	4,522	4,582	2,521	5,054	NA	1.2	3,768	3,818	2,100	4,211
98001-02P Bio Fuel	0	0	4,413	0	NA	1.2	0	0	3,677	0
98002-00P Bio Fuel	2,512	1,625	7,286	2,807	NA	1.2	2,093	1,354	6,071	2,339
98003-00P Bio Fuel	3,320	4,826	3	5,711	NA	1.2	2,766	4,021	2	4,759
98005-00P Bio Fuel	2,814	1,821	0	650	NA	1.2	2,345	1,517	0	541
98010-00P Bio Fuel	581	376	0	0	NA	1.2	484	313	0	0
98012-00P Bio Fuel	0	993	0	0	NA	1.2	0	827	0	0
94-1-00P Rosboro	473	0	0	0	NA	1.2	394	0	0	0
Total:							11,850	11,850	11,850	11,850

(a) IPTR: Inter-Pollutant Trading Ratio

**ATTACHMENT B
NO_x ERCS PROVIDED**

The following NO_x ERCS (or inter-pollutant traded VOC ERCS) have been provided to the FRAQMD to comply with the requirements of Condition V.46:

ERC Certificate	Face Value of NO _x /VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NO _x Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel NO _x	3,798	3,282	1,528	4,245	NA	1.2	3,165	2,735	1,273	3,537
98001-02P Bio Fuel NO _x	0	0	2,697	0	NA	1.2	0	0	2,247	0
98002-00P Bio Fuel NO _x	2,110	1,365	5,094	2,358	NA	1.2	1,758	1,137	4,245	1,965
98002-00P Bio Fuel VOC	0	0	884	0	2.0	1.2	0	0	368	0
98003-00P Bio Fuel NO _x	6,265	4,054	1,106	7,002	NA	1.2	5,220	3,378	921	5,835
98003-00P Bio Fuel VOC	4,138	0	1,313	0	2.0	1.2	1,724	0	547	0
98005-00P Bio Fuel NO _x	2,364	1,529	417	2,642	NA	1.2	1,970	1,274	347	2,201
98005-00P Bio Fuel VOC	0	0	497	0	2.0	1.2	0	0	207	0
98010-00P Bio Fuel NO _x	488	316	86	546	NA	1.2	406	263	71	455
98010-00P Bio Fuel VOC	0	0	103	0	2.0	1.2	0	0	42	0

**ATTACHMENT B
NO_x ERCS PROVIDED
(CONTINUED)**

ERC Certificate	Face Value of NO _x /VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NO _x Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98012-00P Bio Fuel NO _x	3,249	2,103	573	3,632	NA	1.2	2,707	1,752	477	3,026
98012-00P Bio Fuel VOC	3,868	0	683	0	2.0	1.2	1,611	0	284	0
98021-00P Bio Fuel NO _x	1,726	1117	305	1,929	NA	1.2	1,438	930	254	1,607
98021-00P Bio Fuel VOC	2,054	0	363	0	2.0	1.2	855	0	151	0
98022-00P Bio Fuel NO _x	3,249	2,103	573	3,632	NA	1.2	2,707	1,752	477	3,026
98022-00P Bio Fuel VOC	3,868	0	683	0	2.0	1.2	1,611	0	284	0
98023-00P Bio Fuel NO _x	3,249	2,103	573	3,632	NA	1.2	2,707	1,752	477	3,026
98023-00P Bio Fuel VOC	3,868	0	683	0	2.0	1.2	1,611	0	284	0
98024-00P Bio Fuel NO _x	3,249	2,103	573	3,632	NA	1.2	2,707	1,752	477	3,026
98024-00P Bio Fuel VOC	3,868	0	683	0	2.0	1.2	1,611	0	284	0
98025-00P Bio Fuel NO _x	3,249	2,103	573	3,632	NA	1.2	2,707	1,752	477	3,026

**ATTACHMENT B
NO_x ERCS PROVIDED
(CONTINUED)**

ERC Certificate	Face Value of NO _x /VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NO _x Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98025-00P Bio Fuel VOC	3,868	0	683	0	2.0	1.2	1,611	0	284	0
98027-00P Bio Fuel NO _x	912	590	161	1,019	NA	1.2	760	491	134	849
98027-00P Bio Fuel VOC	1,085	0	192	0	2.0	1.2	452	0	80	0
98028-00P Bio Fuel NO _x	1,452	940	256	1,623	NA	1.2	1,210	783	213	1,352
98028-00P Bio Fuel VOC	483	0	305	0	2.0	1.2	201	0	127	0
98-101-00P Tri Union NO _x	3,334	3,371	3,408	3,408	NA	1.2	2,778	2,809	2,840	2,840
992024-00P Tri Union NO _x	16,986	16,986	16,986	16,986	NA	1.2	14,155	14,155	14,155	14,155
992024-00P Tri Union VOC	0	0	261	0	2.0	1.2	0	0	108	0
95-1-00P Atlantic Oil NO _x	10,955	10,955	10,955	10,955	NA	1.2	9,129	9,129	9,129	9,129
95-1-00P Atlantic Oil VOC	0	0	2,526	0	2.0	1.2	0	0	1,052	0
9902005-00P Atlantic Oil NO _x	5,683	5,683	5,683	5,683	NA	1.2	4,735	4,735	4,735	4,735

**ATTACHMENT B
NO_x ERCS PROVIDED
(CONTINUED)**

ERC Certificate	Face Value of NO _x /VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NO _x Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
9902005-00P Atlantic Oil VOC	0	0	53	0	2.0	1.2	0	0	22	0
9902029-00P Atlantic Oil NO _x	3,648	3,648	3,648	3,648	NA	1.2	3,040	3,040	3,040	3,040
9902029-00P Atlantic Oil VOC	0	0	39	0	2.0	1.2	0	0	16	0
9902030-00P Atlantic Oil NO _x	4,536	4,536	4,536	4,536	NA	1.2	3,780	3,780	3,780	3,780
9902030-00P Atlantic Oil VOC	0	0	65	0	2.0	1.2	0	0	27	0
94-1-00P Rosboro NO _x	21,134	21,134	21,134	18,850	NA	1.2	17,611	17,611	17,611	15,708
94-1-00P Rosboro VOC	1,760	0	1,920	0	2.0	1.2	733	0	800	0
06-5-99-1 Tri Union Colusa APCD NO _x	6,280	6,280	6,280	6,280	NA	1.2	5,233	5,233	5,233	5,233
06-5-99-1 Tri Union Colusa APCD VOC	0	0	140	0	2.0	1.2	0	0	58	0
EC-0002 Holly Sugar Glenn APCD NO _x	0	0	24,000	0	NA	1.5	0	0	16,000	0

**ATTACHMENT B
 NO_x ERCS PROVIDED
 (CONTINUED)**

ERC Certificate	Face Value of NO _x /VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NO _x Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
EC-0058 Spreckles YSAQMD NO _x	103	3,632	0	0	NA	1.5	68	2,421	0	0
EC-0059 Spreckles YSAQMD NO _x	279	23,107	1,205	8,646	NA	1.5	186	15,404	803	5,764
EC-0060 Spreckles YSAQMD NO _x	328	6,649	8,698	7,778	NA	1.5	218	4,432	5,798	5,185
EC-0061 Spreckles YSAQMD NO _x	128	0	3,392	0	NA	1.5	85	0	2,261	0
Total:							102,500	102,500	102,500	102,500

(a) IPTR: Inter-Pollutant Trading Ratio

**ATTACHMENT C
PM₁₀ ERCS PROVIDED**

The following PM₁₀ ERCS have been provided to the FRAQMD to comply with the requirements of Condition V.46:

ERC Certificate	Face Value of PM ₁₀ ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project PM ₁₀ Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel	5,087	5,683	3,387	5,685	NA	1.2	4,239	4,735	2,822	4,737
98001-02P Bio Fuel	0	0	5,884	0	NA	1.2	0	0	4,903	0
98002-00P Bio Fuel	2,826	1,828	10,801	3,158	NA	1.2	2,355	1,523	9,000	2,631
98003-00P Bio Fuel	8,390	5,429	1,481	9,378	NA	1.2	6,991	4,524	1234	7,815
98005-00P Bio Fuel	3,166	2,048	559	3,538	NA	1.2	2,638	1,706	465	2,948
98010-00P Bio Fuel	654	423	115	731	NA	1.2	545	352	95	609
98012-00P Bio Fuel	4,352	2,816	768	4,864	NA	1.2	3,626	2,346	640	4,053
98021-00P Bio Fuel	2,311	1,495	408	2,583	NA	1.2	1,925	1,245	340	2,152
98022-00P Bio Fuel	4,352	2,816	768	4,864	NA	1.2	3,626	2,346	640	4,053
98023-00P Bio Fuel	4,352	2,816	768	4,864	NA	1.2	3,626	2,346	640	4,053
98024-00P Bio Fuel	4,352	2,816	768	4,864	NA	1.2	3,626	2,346	640	4,053
98025-00P Bio Fuel	4,352	2,816	768	4,864	NA	1.2	3,626	2,346	640	4,053
98027-00P Bio Fuel	1,221	790	215	1,365	NA	1.2	1,017	658	179	1,137
98028-00P Bio Fuel	1,945	1,258	343	2,174	NA	1.2	1,620	1,048	285	1,811
94-1-00P Rosboro	8,058	14,638	13,561	2,484	NA	1.2	6,715	12,198	11,300	2,070

**ATTACHMENT C
 PM₁₀ ERCS PROVIDED
 (CONTINUED)**

ERC Certificate	Face Value of PM ₁₀ ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project PM ₁₀ Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
06-5-99-1 Tri Union Colusa APCD	31	31	31	31	NA	1.2	25	25	25	25
EC-0060 Spreckles YSAQMD	0	9,684	18,528	0	NA	1.5	0	6,456	12,352	0
Total:							46,200	46,200	46,200	46,200

(a) IPTR: Inter-Pollutant Trading Ratio