CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

Item 1a

DATE: September 7, 2018

TO: Interested Parties

FROM: John Heiser, Project Manager

SUBJECT: **Sutter Energy Center Petition to Amend (97-AFC-02C) Staff Analysis on Petition to Amend**

On July 17, 2018, CCFC Sutter Energy, LLC (Petitioner) filed a petition to amend the Sutter Energy Center's (SEC) (97-AFC-02C) license issued by the California Energy Commission (Energy Commission). The Petitioner is requesting to modify Air Quality Condition of Certification AQ-32 to enhance operational flexibility.

The combined-cycle, 578-megawatt, natural gas-fired facility was certified by the Energy Commission on April 14, 1999, and began commercial operation on July 2, 2001. SEC is located approximately seven miles southwest of Yuba City, on South Township Road near the intersection with Best Road.

The petition requests amending existing Air Quality Condition of Certification AQ-32 to enhance operational flexibility and conformance with Sutter Energy Center's (SEC) Title V Operating Permit issued by the Feather River Air Quality Management District. The Sutter Amendment requests permission to have 800 hours of startups per year at the facility level, rather than 400 hours per turbine (for the two turbines), for a total of 800 startup hours over a year. Likewise, the amendment requests permission to have 600 hours of shutdown per year at the facility level, rather than 300 hours per turbine. This would give Sutter more operational flexibility. The changes would not increase any permitted emission limits as proposed, and the refinement to AQ-32 does not affect SEC's ability to comply with all applicable laws, ordinances, regulations and standards.

Staff reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety and for conformance with all applicable laws ordinances, regulations, and standards (LORS). Staff determined that **Air Quality** is the only technical area affected by the petition. Air Quality staff propose the modification of Condition of Certification **AQ-32** addressing limits to startup and shutdown hours to make it consistent with the proposed changes to SEC's permit issued by Feather River Air Quality Management District (District).

It is staff's conclusion that, with the implementation of these changes, the project would remain in compliance with applicable LORS, and the proposed modifications would not cause a significant impact on the environment. (Cal. Code Regs., tit. 20, § 1769.) Staff intends to recommend approval of the petition at the Energy Commission's September 21, 2018 Business Meeting.

The Energy Commission's webpage for this facility, https://www.energy.ca.gov/sitingcases/sutterpower/index.html, has a link to the petition and the staff analysis. After the Commission Decision, the Energy Commission's Order regarding this petition will also be available from the same webpage.

This notice is being mailed to the Energy Commission's list of interested parties and property owners adjacent to the facility site. It will also be emailed to the facility listserv. The listserv is an automated Energy Commission system by which information about this facility is emailed to parties who have subscribed. To subscribe, go to the Commission's webpage for this facility, cited above, scroll down the right side of the project webpage to the box labeled "Subscribe," and provide the requested contact information.

Public Comment: Those who wish to comment on the analysis are asked to submit their comments by 5:00 p.m., September 20, 2018. Those who wish to comment can use the Energy Commission's e-Commenting feature as follows: Go to the Energy Commission's SEC webpage and click on either the "Comment on this Proceeding" or "Submit e-Comment" link. In the form, provide the required information—your full name, email address, the comment title, and either a comment or an attached document. The comment title should be "[Your Name]'s Comments re SEC Petition." Type your comments into the "Comment Text" field, or upload and attach a document with your comments. The maximum upload file size is 10MB, and only .doc, .docx, or .pdf attachments will be accepted. Enter the phrase that is used to prevent spamming. Then click on the "Agree and Submit your Comments" button to submit your comments to the Energy Commission Dockets Unit. When your comments are accepted and docketed, you will receive an email with a link to them on the facility webpage.

Written comments may also be mailed or hand-delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 97-AFC-02C
1516 Ninth Street
Sacramento, CA 95814-5512

All filed comments and materials accepted by the Dockets Unit will be added to the facility docket log and become publically accessible on the Energy Commission's webpage for the facility.

Contact: If you have questions about this notice, please contact John Heiser, Project Manager, at (916) 653-8236, or via e-mail at John.Heiser@energy.ca.gov.

Public Participation: The Energy Commission's Public Adviser's Office is available to provide the public with an understanding of the proceedings and to make recommendations for meaningful participation. For assistance, contact Alana Mathews, Public Adviser, at (916) 654-4489, or toll free in California at (800) 822-6228, or by email at publicadviser@energy.ca.gov.

News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail at mediaoffice@energy.ca.gov.

Mail List 709
Sutter Energy Center Power List Serve

STAFF ANALYSIS

SUTTER ENERGY CENTER
(97-AFC-02C)

PETITION TO AMEND

SUTTER ENERGY CENTER
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PETITION TO AMEND THE COMMISSION DECISION
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John Heiser, AICP

INTRODUCTION

On July 17, 2018, CCFC Sutter Energy, LLC (Petitioner) filed a petition to amend the Sutter Energy Center's (SEC) (97-AFC-02C) license issued by the California Energy Commission (Energy Commission). The Petitioner is requesting to modify Air Quality Condition of Certification AQ-32 to enhance operational flexibility and conform to SEC's Title V Operating Permit issued by the Feather River Air Quality Management District (District). The combined-cycle, 578-megawatt, natural gas-fired facility was certified by the Energy Commission on April 14, 1999, and began commercial operation on July 2, 2001.

PROJECT LOCATION AND DESCRIPTION

SEC is a nominal 578-megawatt (MW) combined-cycle power plant that began commercial operation on July 2, 2001. SEC is located approximately 7 miles southwest of Yuba City, Sutter County, along South Township Road in a rural area that is surrounded by orchards to the east and rice fields to the west. The facility consists of two combustion turbine generators, two heat recovery steam generators with duct burners, and a steam turbine generator.

Since the original Energy Commission Decision for the SEC (CEC 1999), the Commission has approved three amendments that made changes to the Air Quality Conditions of Certification that are described in the attached staff analysis. These amended conditions are still applicable to the SEC and to the modifications proposed in the current amendment.

This petition requests modifications to Air Quality Condition of Certification **AQ-32** (CCFC 2018). If approved, the amendment would:

- Revise **AQ-32 part (5)** to allow the maximum hours of startups per year and calendar quarter. The Energy Commission Air Quality Condition of Certification **AQ-32 (5),** which currently limits the duration of the quarterly and annual startup hourly limit per turbine, would be modified to allow these limits to apply cumulatively to both combustion turbine generators (CTGs).
- Revise **AQ-32 part (6)** to allow the maximum hours of shutdowns per year and calendar quarter. The Energy Commission Air Quality Condition of Certification **AQ-32 (6),** which currently limits the duration of quarterly and annual shutdown hourly limit per turbine, would be modified to allow these limits to apply cumulatively to both CTGs.

NECESSITY FOR THE PROPOSED MODIFICATIONS

The modifications to Condition of Certification **AQ-32** would conform the Energy Commission's license with SEC's Title V Operating Permit issued by the Feather River Air Quality Management District (District) on April 4, 2018. In issuing the Title V Operating Permit, the District approved refinements to **AQ-32** that provide the operational flexibility needed for SEC to support reliability and integration of intermittent renewable resources.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Because the petition proposes no physical changes to SEC, staff determined that **Air Quality** is the only technical area affected. Air Quality staff concluded that Petitioner's proposed amendment to the SEC's license would not have a significant impact on the environment and the project would continue to comply with LORS. Staff's conclusions reached in each technical area are summarized in **Executive Summary Table 1**.

Executive Summary Table 1
Summary of Impacts to Each Technical Area

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			Revised Conditions of Certification Recommended
	Technical Area Not Affected	No Significant Environmental Impact or LORS Inconsistency*	Process As Amendment	
Air Quality			X	X
Biological Resources	X			
Cultural Resources	X			
Efficiency	X			
Facility Design	X			
Geology and Paleontology	X			
Hazardous Materials Management	X			
Land Use	X			
Noise and Vibration	X			
Public Health	X			
Reliability	X			
Socioeconomics/Environmental Justice	X			
Soil and Water Resources	X			
Traffic and Transportation	X			
Transmission Line Safety & Nuisance	X			
Transmission System Engineering	X			
Visual Resources	X			
Waste Management	X			
Worker Safety and Fire Protection	X			

*There is no possibility that the modifications may have a significant effect on the environment and the modification will not result in a change or deletion of a condition adopted by the commission in the final decision or make changes that would cause the project not to comply with any applicable laws, ordinances, regulations, or standards (LORS) (Cal. Code Regs., tit. 20, § 1769 (a)(2)).

Staff has determined that the following technical or environmental areas are not affected by the proposed changes: **Biological Resources, Cultural Resources, Efficiency, Facility Design, Geology and Paleontology, Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Reliability, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Transmission System Engineering, Visual Resources, Waste Management,** and **Worker Safety and Fire Protection**

AIR QUALITY

The attached Air Quality analysis indicated that the Air District determined that the proposed modifications at the SEC would comply with all applicable District rules and regulations. No other permit limits, concentrations, mass emissions, or reporting requirements would change as a result of this modification.

Staff's analysis also determined the requested modifications would not increase allowable emissions, and agrees that the startup and shutdown limitations imposed by **parts 5** and **6** of Condition of Certification **AQ-32** can be modified without causing adverse environmental impacts.

Staff recommends adoption of modified air quality Condition of Certification **AQ-32**, **part 5** and **part 6**.

The proposed modifications are not expected to impact the project's ability to comply with all applicable LORS, as confirmed by the Title V permit and this analysis.

BIOLOGICAL RESOURCES

The proposed modifications apply to Air Quality Condition of Certification (AQ-32), **AQ-32**, would not exceed permit limits, and would not result in any change to the physical environment or ground disturbance activities. Therefore, the proposed modifications would not have any impacts on biological resources.

PUBLIC HEALTH

This change allows for increased flexibility without increasing public health impacts. Therefore, the proposed modifications would not have any impacts on Public Health.

SOCIOECONOMICS

The proposed revisions of **AQ-32** related to air emission limits would not result in the need to employ more workers. The proposed modifications would not have the potential to affect socioeconomics.

TRAFFIC AND TRANSPORTATION

The proposed changes to Condition of Certification **AQ-32** would not require new infrastructure or construction of any kind, and no physical change to the environment would occur.

VISUAL RESOURCES

The proposed changes to Condition of Certification **AQ-32** would not require new infrastructure or construction of any kind, and no physical change to the environment would occur.

ENVIRONMENTAL JUSTICE (EJ)

Environmental Justice – Figure 1 shows 2010 census blocks in the six-mile radius of the Sutter Energy Center a minority population greater than or equal to 50 percent. The population in these census blocks represents an environmental justice (EJ) population based on race and ethnicity as defined in the United States Environmental Protection Agency's *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*.

Based on California Department of Education data in the **Environmental Justice – Table 1** and presented in **Environmental Justice – Figure 2**, staff concluded that the percentage of those living in the school district of Yuba City Unified School District (in a six-mile radius of the project site) and enrolled in the free or reduced price meal program is larger than those in the reference geography, and thus are considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*.

Environmental Justice – Table 1
Low Income Data within the Project Area

SCHOOL DISTRICTS IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced Price Meals	
Franklin Elementary School District	478	134	28.0%
Winship Robbins Elementary School District	740	388	52.4%
Yuba City Unified School District	13,284	9,048	68.1%
REFERENCE GEOGRAPHY			
Sutter County	22,633	13,653	60.3%

Source: CDE 2017. California Department of Education, DataQuest, Free or Reduced Price Meals, District level data for the year 2016-2017, <http://dq.cde.ca.gov/dataquest/>.

Staff's environmental justice impact analysis evaluates the project's impacts on the EJ population living within a six-mile radius of the project site. Staff uses a six-mile radius around the project site, based on the parameters for dispersion modeling used in staff's air quality analysis, to obtain data to gain a better understanding of the demographic makeup of the communities potentially impacted by the project. Air quality impacts are generally the type of project impacts that extend the furthest from a project site. Beyond a six-mile radius air emissions have either settled out of the air column or mixed with surrounding air to the extent the potential impacts are less than significant.

ENVIRONMENTAL JUSTICE CONCLUSIONS

If affected, the following technical areas would discuss impacts to EJ populations: air quality, cultural resources (indigenous people), hazardous materials management, land use, noise and vibration, public health, socioeconomics, soil and water resources, traffic and transportation, transmission line safety and nuisance, visual resources, and waste management. None of these areas are affected by the proposed petition other than air quality. In the air quality analysis, staff proposes changes to conditions of certification.

Staff has determined that by adopting the proposed changes to the existing conditions of certification, the amended project would not cause significant air quality impacts for any population in the project's six-mile radius, including the EJ population represented in **Environmental Justice – Figure 1** and **Figure 2** and **Table 1**.

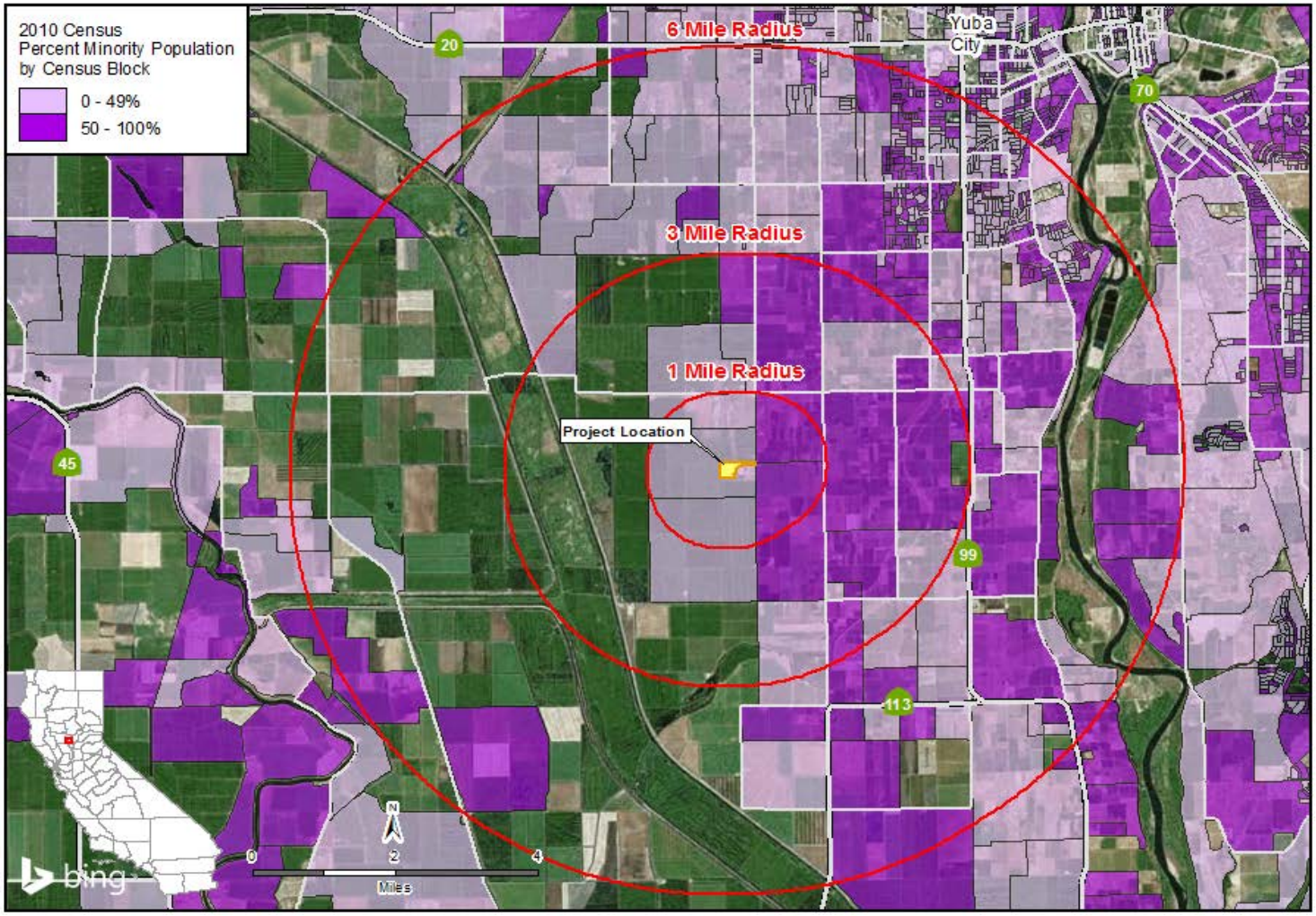
STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes that the following required findings, mandated by Title 20, California Code of Regulations, section 1769 (a)(3), can be made, and staff recommends approval of the petition by the Energy Commission:

- The proposed modifications would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1748(b)(5);
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification;
- The facility would remain in compliance with all applicable LORS;
- Since there would be no increase in allowable emissions, staff agrees that the startup and shutdown limitations imposed by **parts 5** and **6** of Condition of Certification **AQ-32** can be modified without causing adverse environmental impacts; and
- The proposed modifications would be beneficial to the project owner and public because it would allow SEC to operate with greater flexibility to meet California ISO's grid needs.

ENVIRONMENTAL JUSTICE - FIGURE 1

Sutter Energy Center - Census 2010 Minority Population by Census Block



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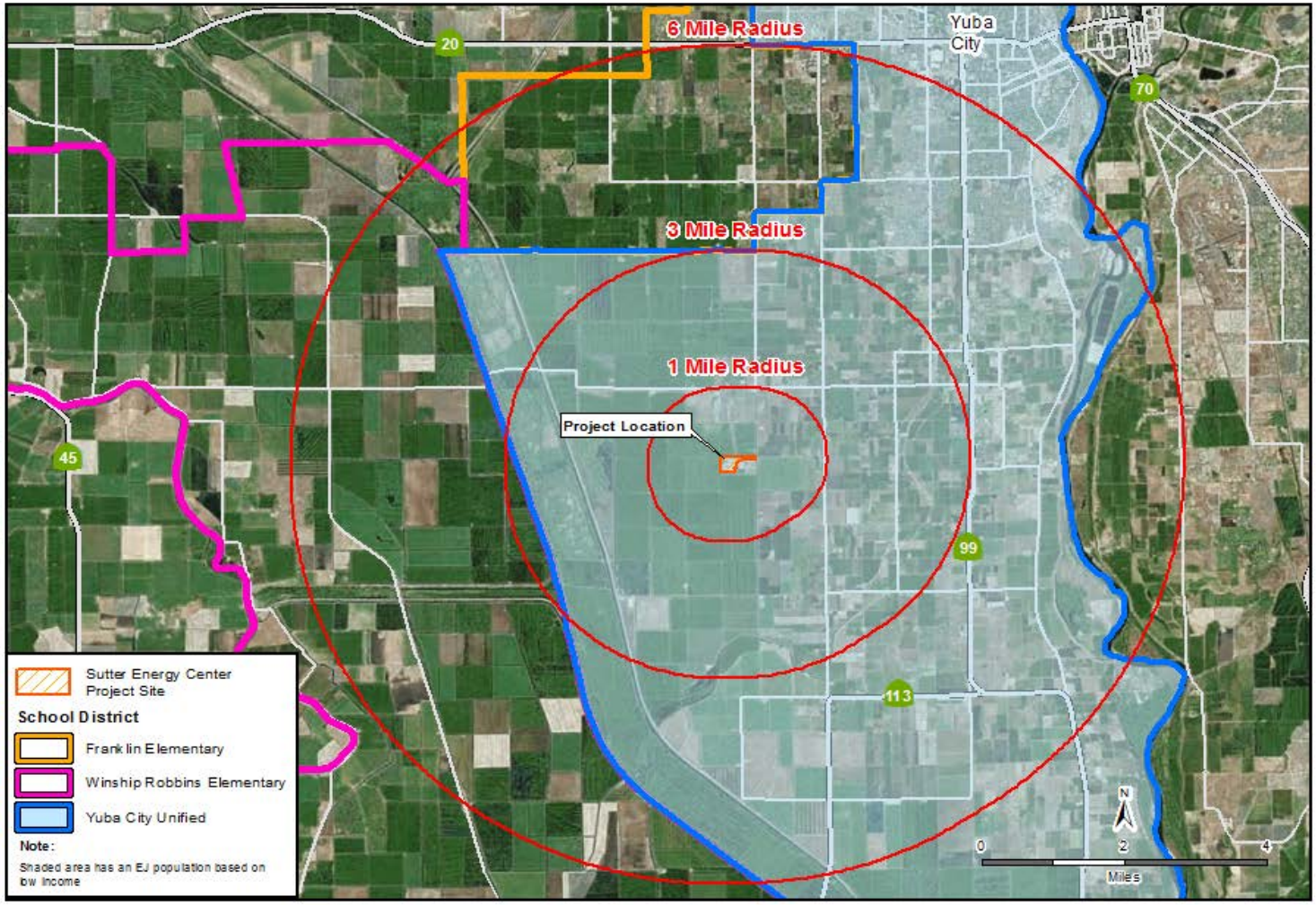
SOURCE: Census 2010 PL 94-171 Data

ENVIRONMENTAL JUSTICE - FIGURE 2

Sutter Energy Center - Environmental Justice Population Based on Low Income



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SOURCE: TIGER Data, CA Dept of Education DataQuest

SUTTER ENERGY CENTER (97-AFC-02C)

Petition to Amend AQ-32, Part 5 and Part 6

AIR QUALITY ANALYSIS

Jacquelyn Record

INTRODUCTION

On July 17, 2018, CCFC Sutter Energy, LLC (Petitioner), filed a petition to amend (Petition) the Energy Commission's Final Decision (Decision) for the Sutter Energy Center (SEC).

Since the original Energy Commission Decision for the SEC (CEC 1999), the Commission has approved three amendments that made changes to the Air Quality Conditions of Certification. The first amendment approved changes to startup emission limits and ammonia injection rate limit and was docketed on December 21, 2000. The second amendment, approved in 2003, resulted in changes to Air Quality Conditions of Certification **AQ-7** through **AQ-41**. The most recent amendment to construct the Grimes natural gas pipeline, approved in May, 2011, added Conditions of Certification **AQ-SC1** through **AQ-SC5**. These amended conditions are still applicable to the SEC and to the modifications proposed in the current amendment.

This petition requests modifications to Air Quality Condition of Certification **AQ-32** (CCFC 2018). If approved, the amendment would:

- Revise **AQ-32 part (5)** regarding the maximum duration of combustion turbine generator (CTG) startups per year and calendar quarter. The Energy Commission Air Quality Condition of Certification **AQ-32 (5)**, which currently limits the duration of the quarterly and annual startup hourly limit per turbine, would be modified to allow these limits to apply to both CTGs combined.
- Revise **AQ-32 part (6)** regarding the maximum duration of CTG shutdowns per year and calendar quarter. The Energy Commission Air Quality Condition of Certification **AQ-32 (6),** which currently limits the duration of quarterly and annual shutdown hourly limit per turbine, would be modified to allow these limits to apply to both CTGs combined.

In this analysis, staff evaluated the potential for air quality impacts from these proposed modifications.

BACKGROUND

The SEC was originally certified by the Energy Commission on April 14, 1999 (CEC 1999), and began commercial operation on July 2, 2001. SEC is located approximately 7 miles southwest of Yuba City, Sutter County, California. SEC is a 578-megawatt (MW), natural-gas-fired, combined-cycle facility. The design consists of two identical combustion turbine generators (CTG), two heat recovery steam generators (HRSG) with duct burners, and a steam turbine generator (STG).

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS COMPLIANCE

The 1999 Decision and subsequently approved amendments concluded that, contingent on its compliance with the Commission's Conditions of Certification, the SEC would be in compliance with all applicable laws, ordinances, regulations, and standards (LORS). Staff has identified no new LORS or changes to LORS applicable to the proposed modifications.

Ambient Air Quality Standard Changes

Since the SEC's 1999 certification, changes to the federal Ambient Air Quality Standards (AAQSs) have changed the categorization of air quality in the SEC area. The 1-hour nitrogen dioxide (NO_2) National Ambient Air Quality Standard (NAAQS) became effective on April 12, 2010. In addition, a new 1-hour SO_2 NAAQS was established, and the 24-hour and annual SO_2 NAAQSs were revoked on June 2, 2010.

The currently applicable federal and state AAQSs are listed in **Air Quality Table 1**. As indicated in this table, the averaging times for the various standards (the duration over which they are measured) range from hourly to annually. The standards are read as a concentration, in parts per million (ppm) or parts per billion (ppb), or as a weighted mass of material per volume of air, in milligrams or micrograms of pollutant per cubic meter of air (mg/m^3 and $\mu g/m^3$).

Air Quality Table 1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Standard	California Standard
Ozone (O_3)[a]	8-hour	0.070 ppm (137 $\mu g/m^3$)	0.070 ppm (137 $\mu g/m^3$)
	1-hour	—	0.09 ppm (180 $\mu g/m^3$)
Carbon Monoxide (CO)	8-hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1-hour	35 ppm (40 mg/m^3)	20 ppm (23 mg/m^3)
Nitrogen Dioxide (NO_2)	annual	53 ppb (100 $\mu g/m^3$)	0.030 ppm (57 $\mu g/m^3$)
	1-hour	100 ppb (188 $\mu g/m^3$)[b]	0.18 ppm (339 $\mu g/m^3$)
Sulfur Dioxide (SO_2)	24-hour	—	0.04 ppm (105 $\mu g/m^3$)
	3-hour	0.5 ppm (1300 $\mu g/m^3$)	—
	1-hour	75 ppb (196 $\mu g/m^3$)[c]	0.25 ppm (655 $\mu g/m^3$)
Respirable Particulate Matter (PM10)	annual	—	20 $\mu g/m^3$
	24-hour	150 $\mu g/m^3$	50 $\mu g/m^3$
Fine Particulate Matter (PM2.5)	annual	15 $\mu g/m^3$	12 $\mu g/m^3$
	24-hour	35 $\mu g/m^3$[d]	—
Sulfates (SO_4)	24-hour	—	25 $\mu g/m^3$
Lead	30-day average	—	1.5 $\mu g/m^3$
	rolling 3-month average	0.15 $\mu g/m^3$	—
Hydrogen Sulfide (H_2S)	1-hour	—	0.03 ppm (42 $\mu g/m^3$)

Pollutant	Averaging Time	Federal Standard	California Standard
Vinyl Chloride (chloroethene)	24-hour	—	0.01 ppm (26 µg/m^3)
Visibility-Reducing Particulates	8-hour	—	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.

Source: ARB 2018a
Notes:
a On October 1, 2015 the national 8-hour ozone primary and secondary standards were lowered from 75 parts per billion ("ppb") to 70 ppb.
b To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average must not exceed 100 ppb.
c To attain this standard, the 3-year average of the 99th percentiles of the daily maximum 1-hour average must not exceed 75 ppb.
d To attain this standard, the 3-year average of the 98th percentile of the daily concentrations must not exceed 35 µg/m3.
ppm= parts per million

Air Quality Table 2 summarizes the current attainment status of the SEC area in the Sacramento Valley Air Basin (SVAB) for various applicable state and federal AAQS. The Sutter County portion of the SVAB is designated as nonattainment for the state ozone standard and PM10 standard. The SVAB is designated as attainment or unclassified for state and federal CO, NO_2, PM2.5 and SO_2.

Air Quality Table 2
Federal and State Attainment Status Project Area in Sacramento Valley Air Basin

Pollutant	Attainment Status	
	Federal	State
Ozone	Unclassifiable/Attainment [a]	Nonattainment
CO	Unclassifiable/Attainment	Unclassifiable/Attainment
NO_2	Unclassifiable/Attainment [b]	Attainment
SO_2	Unclassifiable/Attainment [a]	Attainment
PM10	Unclassified	Nonattainment
PM2.5	Attainment [c]	Attainment

Source: ARB 2018a, U.S. EPA 2018a
Notes:
[a.] For the project site area only, not the entire SVAB.
[b.] On February 17, 2012 U.S. EPA designated all of California as "unclassifiable/attainment" for the short-term NO_2 standard.
c. The ARB PM2.5 area designation recommendation for federal PM2.5 released October 28, 2013 redesignated the project area of the Sacramento Valley Air Basin from a nonattainment status to attainment.

ANALYSIS OF POTENTIAL AIR QUALITY IMPACTS FROM MODIFICATION OF CONDITION OF CERTIFICATION AQ-32, PARTS 5 AND 6

The petitioner proposes to modify two parts of the Energy Commission Air Quality Condition of Certification **AQ-32**. If this is approved, the following limits on the two identical existing CTGs would be changed as follows:

- Revise **AQ-32 part (5)** which currently limits for each turbine the maximum hours of startups per year and calendar quarter. **Part 5** currently limits the duration of the quarterly and annual startup hours per turbine, rather than the request to apply this limit to both turbines combined.
- Revise **AQ-32 part (6)** which currently limits for each turbine the maximum hours of shutdowns per year and calendar quarter. **Part 6** currently limits the duration of the quarterly and annual shutdown hours per turbine, rather than the request to allow for both turbines combined.

The Feather River Air Quality Management District (District) is the local air pollution control district for the SEC site. The District issued their amended Title V permit on August 9, 2018. The Petitioner has requested to make the air quality conditions of certification consistent with the amended Title V permit. The proposed modifications would "provide the operational flexibility needed for SEC to support reliability and integration of intermittent renewable resources" (SEC 2018, page 1).

In an amendment to the SEC's license approved in 2000 (CEC 2000), a limitation on the type of startup was removed and combined into the current version of air quality Condition of Certification **AQ-32**. This change was implemented because of concerns about the definition of a "cold start" versus a "warm start" as described below. As stated in the staff analysis for that amendment:

> *"There were certain assumptions made concerning hot and cold startups based on information available at the time. A key assumption was that for up to a 72-hour period after shutdown, a restart of a combustion gas turbine (CTG) could be considered a warm startup, and that the emissions would be lower than for a cold startup, defined as a restart occurring more than 72 hours after a CTG shutdown. In reviewing this assumption with the primary equipment vendors, it was determined that it was erroneous. In fact, it was determined that a CTG would cool down much more rapidly than estimated and be in a cold startup mode well before 72 hours had elapsed from the last shutdown event. Therefore, the assumption that hourly emissions would be lower within that entire 72-hour period of time was erroneous. In order to correct this problem, SEC could have requested that the definition of hot and cold startups be revised to reflect a lesser period of time from the previous CTG shutdown. The reason that SEC asked to replace the hot and cold start definitions with a single set of emission limits to cover all starts was for simplicity of operation and monitoring.*

The applicant proposed eliminating the distinction between hot and cold startups and instead having a single set of emission limits for all startups. The emission limits that are proposed use the higher hourly levels for cold startups. However, the total emission limits per startup use the lower limit for hot startups. The daily limits for emissions remain unchanged. By having one set of startup emission limits, compliance with and enforceability of this condition becomes easier because the operator does not have to distinguish cold starts from hot starts every time turbine operation is initiated. The quantity of required air emission offsets is based on the daily and annual emission limits for the project. The daily and annual emission limits will remain the same, and therefore, the offsets specified in the Commission Decision will remain adequate if the proposed modifications of Condition of Certification AQ-32 are approved.[1]" (CEC 2000.)

Energy Commission **Air Quality** Condition of Certification **AQ-32 part (5)** currently limits the maximum duration for startups for each combustion turbine generator (CTG) to 400 hours per year and 102 hours per calendar quarter. The proposed modification would allow the two combined CTGs to have the maximum number of hours of startups total 800 hours per year and 204 hours per calendar quarter. Similarly, Energy Commission Air Quality Condition of Certification **AQ-32 part (6),** currently limits the maximum duration for shutdowns for each combustion turbine generator (CTG) to 300 hours per year and 76 hours per calendar quarter. The proposed modification would allow the two combined CTGs to have the maximum number of hours of shutdowns total 600 hours per year and 152 hours per calendar quarter.

The facility would still be required to comply with all other daily, quarterly, and annual (calendar year) mass emission limits at all times. Compliance with the CO and NOx limitations would be verified by a CEMS that would be in operation during all operating modes, including startup and shutdown. Compliance with the VOC, sulfur oxides (SOx), and PM10 mass emission limits would be verified through source testing.

To further describe the emissions profile during startup and shutdown, the existing permit limits for each turbine are as follows:

[1] http://www.energy.ca.gov/sitingcases/sutterpower/documents/2000-10-26_STAFF_ANALYSIS.PDF

Air Quality Table 1
Maximum Allowable Hourly Emissions
from Each Gas Turbine/Duct Burner (lbs/hour)

Pollutant	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
PM10	11.5 (a)	9 (b)	54	9
CO	34.3 (a)	902 (a)	2,514	100

Source: CCFC 2018, Feather River Air Quality Management District Title V Operating Permit, **AQ-32 (11)**
(a) Based on 3-hour rolling average, clock hour basis.
(b) Based on 1-hour average, clock hour basis

The Petitioner has requested to retain the existing permitted mass emission limits per startup and shutdown. There are several Air Quality Conditions of Certification that are currently limiting mass emissions per startup and shutdown. Air Quality Condition of Certification **AQ-32 part 11** through **part 14** would continue to limit permitted hourly, daily, quarterly, and annual mass emissions on the CTGs. Similarly, Air Quality Condition of Certification **AQ-32 part 1** through **part 3** would continue to limit maximum concentrations for the CTGs.

Since there would be no increase in SEC's potential to emit (PTE), there are no potentially significant adverse effects on the environment that would result from the proposed modification. Staff recommends modifying Air Quality Condition of Certification **AQ-32**, **part 5** and **part 6** as described below.

ENVIRONMENTAL JUSTICE

Staff has not identified any significant adverse direct or cumulative air quality impacts resulting from the operation of the proposed SEC modification, including impacts to the identified extant environmental justice population. Therefore, there are no air quality environmental justice issues related to this change, and no minority or low-income populations would be significantly or adversely impacted.

CUMULATIVE IMPACTS

The proposed SEC amendment would not change any mitigation measures designed to reduce potential air quality impacts from the original siting proceeding for SEC that were previously concluded to be less-than-significant impacts. No cumulative adverse impacts would occur as a result of the proposed changes to the SEC.

CONCLUSIONS AND RECOMMENDATIONS

The District issued the facility's current Title V Operating Permit (Title V) on August 9, 2018. This modification did not require a public comment period, however a public notice was issued for the permit renewal and no comments have been received. In the Title V permit analysis, the District determined that the proposed modifications at the SEC would comply with all applicable District rules and regulations. No other permit limits, concentrations, mass emissions, or reporting requirements would change as a result of this modification.

With this modification the Petitioner has requested to maintain the existing facility-level permitted emission limits per startup and shutdown. The Petitioner has also requested to maintain the permitted hourly, daily, quarterly, and annual mass emission limits and concentration emission limits as they currently exist in the Air Quality Conditions of Certification. This modification would allow SEC to have more operating flexibility. Since there would be no increase in allowable emissions, staff agrees that the startup and shutdown limitations imposed by **parts 5** and **6** of Condition of Certification **AQ-32** can be modified without causing adverse environmental impacts.

The modification would maintain the permitted hourly, daily, quarterly, and annual mass emission limits and concentration emission limits as they currently exist in the air quality conditions of certification. Staff concludes that for greenhouse gas emissions (GHGs), the project would continue to comply with existing mandatory Air Resources Board (ARB) GHG emissions reporting regulations (Cal. Code of Regs., tit. 17, § 95100 et. seq.) and future GHG regulations formulated by the EPA or the ARB, such as any expanded cap-and-trade requirements for GHG emissions.

There would be no increase in SEC's PTE and no other changes to permitted emissions limits are proposed. Therefore, there is no potentially significant adverse effects on the environment that would result from the proposed condition of certification modifications. Staff recommends adoption of the modified air quality Condition of Certification **AQ-32**, **part 5** and **part 6**.

The proposed modifications are not expected to impact the project's ability to comply with all applicable LORS, as confirmed by the Title V permit and this analysis.

PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

The modified condition, shown in **underline and bold** below, are proposed to ensure that the SEC complies with all applicable local, state, and federal regulations. This modification to the Conditions of Certification **AQ-32** would be consistent with current Feather River Air Quality Management District Title V permit requirements (Attachment A, P.4 CCFC 2018). ~~Strikethrough~~ is used to indicate the deleted language (**parts 5 and 6**) in Condition of Certification **AQ-32**. All other portions of Condition of Certification **AQ-32** would remain unchanged.

Revisions to Air Quality Condition of Certification AQ-32

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 to the gas turbine and ending at the start of the first hour period when the NOx concentrations do not exceed 2.5 ppmvd (parts per million volume dry) at 15% O_2, averaged over 1 hour, and the CO concentrations do not exceed 4.0 ppm at 15% O_2, averaged over 1 hour.

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% O_2, or the 15-minute average CO concentration exceeds 4.0 ppm at 15% O_2, and ending when the 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** CTG**s** shall be ~~400~~ **800** hours per year and ~~102~~ **204** hours per calendar quarter.

6. The maximum duration of shutdowns ~~per~~ **for both** CTG**s** shall be ~~300~~ **600** hours per year, and ~~76~~ **152** hours per calendar quarter.

7. Compliance with the above yearly limits shall be calculated based on a rolling 12-month average.

8. All emissions during startups and shutdowns shall be included in all calculations of daily, quarterly, and annual mass emissions required by this permit.

9. For each duct burner the total hours of combusting fuel shall not exceed 5,460 per calendar year.

10. For each CTG the total hours of Power Augmentation Steam Injection shall not exceed 2,000 hours per calendar year.

11. The maximum hourly emissions from each gas turbine/duct burner are given in the table below and shall be averaged over a rolling three-hour period, except for the NOx emissions and all hourly startup emission rates, which shall be averaged over a one-hour period. Additionally,

excepting the total emissions per startup and total emissions per shutdown which are not averaged over any time frame.

Pollutant	Maximum Allowable Hourly Emissions from Each Gas Turbine/Duct Burner (lbs/hour)			
	In All Modes of Operation, Except Startup and Shutdown (lbs/hour)	Startup (lbs/hour)	Startup (lbs/startup)	Shutdown (lbs/shutdown)
NOx (as NO_2)	19.1 (b)	175 (b)	680	80
CO	34.3 (a)	902 (a)	2514	100
VOC	3.51 (a)	16 (b)	59	16
SOx (as SO_2)	4.02 (a)	3.7 (b)	22.2	3.7
PM10	11.5 (a)	9 (b)	54	9

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

12. For maximum project daily emissions (lbs/day) are given in the table below:

Pollutant	Maximum Allowable Daily Emissions from the Facility[a] (lbs/day)
NOx	1,817
CO	6,528
VOC	158
SO_2	179
PM10	541

[a] Includes both combustion turbines and both duct burners.

13. The maximum quarterly emissions for the facility are given in the table below:

Pollutant	Maximum Allowable Quarterly Emissions from the Facility[a]			
	January-March (lbs/quarter)	April-June (lbs/quarter)	July-September (lbs/quarter)	October-December (lbs/quarter)
NOx	102,500	102,500	102,500	102,500
CO	241,600	241,600	241,600	241,600
VOC	11,850	11,850	11,850	11,850
SO_2	15,750	15,750	15,750	15,750
PM10	46,200	46,200	46,200	46,200

[a] Includes both combustion turbines and both duct burners.

14. The maximum annual calendar year emissions (tons/year) for the facility are given in the table below:

Pollutant	**Maximum Allowable Calendar Year Emissions from the Facility[a] (tons/yr)**
NOx	205.0
CO	483.2
VOC	23.7
SO_2	31.5
PM10	92.4

[a] Includes both combustion turbines and both duct burners.

Verification: As part of the Quarterly Air Quality Report (as required by AQ-40), the facility owner shall provide all data required in this condition. In the Quarterly Air Quality Reports (as required by AQ-40), the facility owner shall indicate the date, time, and duration of any violation to the NOx and VOC limits presented in this condition. The facility owner shall include in the Quarterly Air Quality Reports (as required by AQ-40) daily and annual emissions as required in this condition.

REFERENCES

ARB 2018a—California Air Resources Board. Air Designation Maps, ARB website, http://www.arb.ca.gov/desig/adm/adm.htm. Accessed August 2018.

ARB 2018b—California Air Resources Board. California Ambient Air Quality Data Statistics, ARB website, http://www.arb.ca.gov/adam/welcome.html. Accessed August, 2018.

CCFC 2018—CCFC Sutter Energy, LLC (TN223836). Petition for Modification (Revised) to the Sutter Energy Center (97-AFC-02). Docketed June 15, 2018.

CEC 2000—California Energy Commission. Sutter Power Project Amendment Draft Staff Analysis. Dated October 26, 2000. http://www.energy.ca.gov/sitingcases/sutterpower/documents/2000-10-26_STAFF_ANALYSIS.PDF

DOCKETED	
Docket Number:	97-AFC-02C
Project Title:	Sutter Power Plant Application for Certification
TN #:	223836
Document Title:	CCFC Sutter Energy LLC Revised Petition for Modification of AQ-32
Description:	N/A
Filer:	Eric Janssen
Organization:	Ellison Schneider Harris & Donlan LLP
Submitter Role:	Applicant Representative
Submission Date:	6/15/2018 2:57:58 PM
Docketed Date:	6/15/2018

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 NOx 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 CTG**s** 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 — Date
Air Pollution Control Officer

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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) NOx 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 NOx combustor technology control NOx emissions from each gas turbine. Low NOx burners control NOx emissions from each duct burner.

A Selective Catalytic Reduction (SCR) system controls NOx 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.l 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 NOx (1-hour average, corrected to 15% O_2)
(b) 20 ppm CO (1-hour average. corrected to 15% O_2)
(c) 228 lbs/hour NOx, (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.l.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.l.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.l.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 (CO_2).
[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 (SO_2).
[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 PM_{10} 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	158 lbs/day
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 NOx concentrations do not exceed 2.5 ppmvd at 15% O_2 averaged over 1 hour; and

    b. the CO concentrations do not exceed 4.0 ppmvd at 15% O_2 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 NOx concentration exceeds 2.5 ppmvd at 15% O_2; or

    b. the 15 minute average CO concentration exceeds 4.0 ppmvd at 15% O_2;

    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 NOx 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 O_2 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 NOx, CO, and O_2 CEM systems shall have the capability of recording NOx, CO and O_2 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 NOx and O_2 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 NOx 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 O_2 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 NOx and O_2 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, SOx and PM_{10}), 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, NOx, SOx, PM_{10}, 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, NOx, CO, and PM_{10}.

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	a. Occurrence and duration of any: 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)]** b. Measurements of each CEMS, recorded in a permanent form, including: 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]** 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: 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	d. Records shall be maintained of all monitoring and support information required by any applicable federal requirement, including: 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. **[FRAQMD Rule 10.3.F.2.f; 40 CFR 70.6(a)(3)(ii)]**
Hourly	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% O_2, 1 hour average, clock hour basis) g. CO emission concentration from each gas turbine/duct burner combination. (ppmvd at 15% O_2, 3 hour rolling average, clock hour basis) h. VOC, NOx, SOx, PM_{10} and CO hourly mass emissions from Gas Turbine #1/Duct Burner #1 combination and Gas Turbine #2/Duct Burner #2 combination. (NOx lbs/hour based on 1 hour average, clock hour basis) (VOC, SOx, PM_{10}, and CO lbs/hour based on 3 hour rolling average, clock hour basis) 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 PM_{10}), the hourly emissions shall be calculated based on the most recently approved FRAQMD emission factors for the emission unit. 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	k. VOC, NOx, SOx, PM_{10}, 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	l. VOC, NOx, SOx, PM_{10}, 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	o. VOC, NOx, SOx, PM_{10}, 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: 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: 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. d. VOC, NOx, SOx, PM_{10} and CO hourly mass emissions from Gas Turbine #1/Duct Burner #1 combination and Gas Turbine #2/Duct Burner #2 combination. e. VOC, NOx, SOx, PM_{10} 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. 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 Submitted by: Jan 31 Apr 30 Jul 31 Oct 31 for the previous calendar quarter	**Report in 4th quarter report only** j. VOC, NOx, SOx, 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) 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 PM_{10} ERCs have been surrendered to the FRAQMD to comply with the PM_{10} 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 (NH_3) 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_2O	3.87
Total CO_2e	**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 (NH_3) 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 ≥ 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

CO_2
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).

NOx
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.

O_2
Oxygen

PM
Particulate matter

PM_{10}
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.

SO_2
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
m2	=	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 NOx 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 NOx/VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NOx Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98001-01P Bio Fuel NOx	3,798	3,282	1,528	4,245	NA	1.2	3,165	2,735	1,273	3,537
98001-02P Bio Fuel NOx	0	0	2,697	0	NA	1.2	0	0	2,247	0
98002-00P Bio Fuel NOx	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 NOx	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 NOx	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 NOx	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 NOx/VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NOx Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98012-00P Bio Fuel NOx	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 NOx	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 NOx	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 NOx	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 NOx	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 NOx	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 NOx/VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NOx 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 NOx	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 NOx	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 NOx	3,334	3,371	3,408	3,408	NA	1.2	2,778	2,809	2,840	2,840
992024-00P Tri Union NOx	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 NOx	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 NOx	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 NOx/VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NOx 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 NOx	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 NOx	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 NOx	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 NOx	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 NOx	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 NOx/VOC ERC Certificates Surrendered (lbs/quarter)				IPTR (a)	Offset Ratio	Value Applied to the Project NOx Emission Liability (lbs/quarter)			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
EC-0058 Spreckles YSAQMD NOx	103	3,632	0	0	NA	1.5	68	2,421	0	0
EC-0059 Spreckles YSAQMD NOx	279	23,107	1,205	8,646	NA	1.5	186	15,404	803	5,764
EC-0060 Spreckles YSAQMD NOx	328	6,649	8,698	7,778	NA	1.5	218	4,432	5,798	5,185
EC-0061 Spreckles YSAQMD NOx	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
PM_{10} ERCS PROVIDED

The following PM_{10} 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
PM_{10} 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

ORDER NO: 18-0921-1a

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

IN THE MATTER OF:	**Docket No. 97-AFC-02C**
SUTTER ENERGY CENTER	**[PROPOSED] ORDER APPROVING PETITION TO AMEND THE FACILITY LICENSE**

On July 17, 2018, CCFC Sutter Energy, LLC (Petitioner), filed a petition to amend (petition) the California Energy Commission's Final Decision for the Sutter Energy Center (SEC) (97-AFC-02). The petition seeks to modify the existing Air Quality Condition of Certification AQ-32. Currently, the SEC facility cannot conduct Combined-Cycle Gas Turbine Generator (CTG) startups which exceed 400 hours per year per CTG and 102 hours per quarter per CTG or shutdowns which exceed 300 hours per year per CTG and 76 hours per quarter per CTG. This petition seeks to enhance operational flexibility by providing cumulative annual and quarterly limits to startup and shutdown operations, rather than caps that apply individually to each of the SEC's two CTGs. This proposed amendment would be consistent with changes made by Feather River Air Quality Management District to the SEC's Title V operating permit.

STAFF RECOMMENDATION

Commission staff reviewed the petition and confirmed that it complies with the requirements of California Code of Regulations, title 20, section 1769(a) and that the proposed amendment would not result in significant environmental impacts. The SEC would remain in compliance with all applicable laws, ordinances, regulations, and standards. Staff filed its analysis in the docket for this proceeding (97-AFC-02C) on September 7, 2018. Based on these conclusions, staff recommends approval of the petition to amend.

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission finds:

- The petition meets all filing criteria of California Code of Regulations, title 20, section 1769(a) concerning post-certification project modifications;

- The modification will not result in any significant environmental impact;

- The modification will not change the findings in the Commission's Final Decision pursuant to California Code of Regulations, title 20, section 1748;

- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525;

- The proposed modification would be beneficial to the project owner and public because it would allow SEC to operate with greater flexibility to meet California ISO's grid needs; and

- The change is based on information that was not known and could not have been known with the exercise of reasonable diligence prior to the Commission's Final Decision because the modification to SEC's Title V operating permit was issued after the Final Decision.

CONCLUSION AND ORDER

The California Energy Commission hereby approves the petition to amend and adopts the changes to Air Quality Condition of Certification AQ-32 as set forth in the staff analysis.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on September 21, 2018.

AYE:
NAY:
ABSENT:
ABSTAIN:

_____
Cody Goldthrite
Secretariat