



CALPINE®

April 15, 2008  
L-0591

OTAY MESA ENERGY CENTER, LLC  
647 ALTA ROAD  
SAN DIEGO, CALIFORNIA 92154  
619.661.3400 (PHONE)  
619.661.7497 (FAX)

Ms. Donna Stone  
Compliance Project Manager  
California Energy Commission  
Energy Facility Siting and Environmental  
Protection Division  
1516 9<sup>th</sup>. Street, MS15  
Sacramento ,CA. 95814-5512

<b>DOCKET</b>	
<b>99-AFC-5C</b>	
DATE	APR 15 2008
RECD.	MAY 12 2008

Reference: Otay Mesa Energy Center LLC  
Project: ~~#600042031~~ 99-AFC-5C

*Commission Decision on*

Subject: Petition to Amend OMEC LLC - AQ-Conditions of Certification; Docket No.99-AFC-5C Amendment 1B.

Dear Ms. Stone:

In accordance with Section 1769 of the California Energy Commission Siting Regulations, Otay Mesa Energy Center LLC (OMEC) submits the attached Petition to Amend AQ-Conditions of Certification in Amendment 1B; Order 04-0121-08. A similar amendment to modify the San Diego Air Pollution Control District FDOCs corresponding Conditions is being submitted to the SDAPCD concurrently.

If you have questions regarding this submittal please call me at 619-661-3411.

Sincerely,  
Otay Mesa Energy Center LLC

Ed Merrihew  
Compliance Manager

File: 5.3.4  
c.c. Arthur Carbonell-SDAPCD  
Mitch Weinberg-WRO  
David Williams-WRO  
Anita Tang-OMEC

## **Petition to Amend AQ-Conditions of Certification in the Otay Mesa Energy Center; Docket 99-AFC-54 (Amendment 1B-Order No. 04-0121-08)**

### **Overview of Amendment:**

In accordance with CCR Title 20, Section 1769 of the CEC Siting Regulations, Otay Mesa Energy Center LLC (OMEC) submits the following discussion to support the proposed minor modifications to the listed AQ-Conditions of Certification in the OMEC Decision.

OMEC is proposing minor modifications to the Otay Mesa Generating Project certification. The proposed modifications in this PETITION are to clarify certain potentially ambiguous language contained in the certification. Based on current language, the averages can be calculated differently. In general, OMEC is requesting the permit conditions to specify that hourly averages will be calculated on a clock hour basis. Specifically, all 1-Hr. calculations should be based on a clock hour and a rolling continuous 3-Hr periods should be based on 3 consecutive clock hours.

### **Section 1769(a)(1)(A) and (B):**

**A description of the proposed modifications, including new language for affected conditions and the necessity for the modifications is required.**

The purpose of most of the modifications is to clarify the ambiguous language in the current Amendment 1B (ORDER 04-0121-08) of those AQ Conditions which reference averaging periods. Specifically, OMEC is requesting that the “*rolling continuous 1-Hour period*” be replaced with “clock hour”.

This modification is consistent with how averaging periods are defined in federal regulations 40 CFR Parts 60 and 75. Similarly, OMEC requests the term “*rolling continuous 3-Hour period*” be replaced with “rolling 3-Hour period”. Additionally, OMEC requests that the averaging language be removed from conditions that reference only mass emissions since mass emissions are accumulated and not average during a 1-hour period.

The proposed modifications would affect the following CEC AQ-Conditions of Certification and the San Diego Air Pollution Control District (SDAPCD) –Authority to Construct permit conditions. The affected CEC Conditions are in **BOLD** print with the *SDAPCD* permit conditions *italicized* and in parenthesis, for reference proposes:

**AQ-21(22); AQ-22(23); AQ-23(24); AQ-83(30); AQ-36(31); AQ-37(32); AQ-38(33); AQ-39(34); AQ-40(35); AQ-42(37); AQ-59(59); AQ-60(60); AQ-61(61).**

At the District’s request, OMEC is requesting an additional modification to SDAPCD and CEC Condition 59. Because the Mobile Emission Reduction Credits (MERCs) have an expiration date, project emissions are only offset only as long as the MERCs are valid. OMEC requests that the condition be amended to allow the provision to relinquish offsets to replace MERCs at the end of their term, instead of a 20 year time table, before reducing the NOx limit to 1 ppm.

Please refer to **Attachment A** which presents each permit condition with strikeout/ underline mode which represents the suggested deleted language and new language.

### **Section 1769( C ) and (D).**

## Petition to Amend AQ-Conditions of Certification-Otay Mesa Energy Center LLC

**A discussion is required if the modification is based on information that was known by the petitioner during the certification proceedings, and an explanation of why the issue was not raised at that time.**

The modifications requested to the AQ-Conditions of Certification in this Petition were recently realized while working with the CEMS system provider in preparation to writing the system logic based on the AQ-Conditions. The project was originally licensed by PG&E Generating, and was subsequently sold to Calpine Corp. in 2001. Therefore, Calpine was unable to know these modifications were needed at the time of the certification process and only became aware when discussions ensued with the CEMS provider.

### **Section 1769 (D).**

**A discussion is required on whether the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other basis of the final decision, and explanation of why the change should be permitted.**

The proposed modifications to the AQ-Conditions of Certification is based on information obtained after the completion of the certification process. Since the changes are administrative in nature and actual facility emissions will be unaffected. OMEC believes the proposed changes do not undermine the assumptions, rationale, findings or other basis of the final decision.

### **Section 1769 (E).**

**An analysis of the impacts the modifications may have on the environment and proposed measures to mitigate any significant adverse impacts is required.**

The proposed modifications to the AQ-Conditions of Certification are administrative and do not result in any significant adverse impact.

### **Section 1769 (F).**

**A discussion on the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations and standards is required.**

The proposed modifications will have no impact on the facility's ability to comply with applicable LORS. OMEC will continue to meet all applicable permit conditions.

### **Section 1769(G).**

**A discussion of how the modifications affect the public is required.**

The proposed modifications to the AQ-Conditions of Certification will not affect the public.

### **Section 1769 (H).**

Petition to Amend AQ-Conditions of Certification-Otay Mesa Energy Center LLC

**A list of property owners potentially affected by the modifications.**

The proposed modifications to the AQ-Conditions of Certification are administrative in nature and therefore, no property owners will be affected by the modifications.

**Section 1769 (I).**

**A discussion of the potential effect on nearby property owners, the public and parties in the application proceedings is required.**

The proposed modifications to the AQ-Conditions of Certification will have no impact on property owners, the public or any other parties.

**ATTACHMENT A**  
**Otay Mesa Energy Center LLC, AQ-Permit Conditions Proposed**  
**Modifications**

**List of Proposed Air Quality Permit Condition Modifications**

[SDAPCD AQ-Permit number is listed first and in parenthesis (# ); CEC AQ-Condition followed in **BOLD** print]

Proposed changes are presented in ~~strikeout~~ (to be deleted) and underline, to be added.

Permit conditions  
(APCD)/CEC

- (22) / **21**. The total emissions from both turbines combined shall not exceed 1133 pounds per hour of oxides of nitrogen (NOx), calculated as nitrogen dioxide, ~~and averaged over a rolling continuous 1-hour period~~. These emissions limits shall apply during startups and shutdowns.
- (23) / **22**. When operating with post-combustion air pollution control equipment, the total emissions from both turbines combined shall not exceed 412 pounds per hour of oxides of nitrogen (NOx), calculated as nitrogen dioxide, ~~and averaged over a rolling continuous 1-hour period~~. Additionally, when operating with post-combustion air pollution control equipment, the total emissions when only one turbine is in operation shall not exceed 283 pounds per hour of NOx, calculated as nitrogen dioxide, ~~and averaged over a rolling continuous 1-hour period~~. These emissions limits shall apply during startups and shutdowns
- (24) / **23**. The total emissions from both turbines combined shall not exceed 2738 pounds per hour of carbon monoxide (CO), ~~averaged over a rolling continuous 1-hour period~~. These limits shall apply during startups and shutdowns.
- (30) / **83**. The emissions of ammonia (slippage) from each gas turbine exhaust stack shall not exceed 10.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a ~~rolling continuous~~-1-hour period.
- (31) / **36**. The emissions of oxides of nitrogen (NOx) from each turbine, calculated as nitrogen dioxide, shall not exceed 2.0 parts per million by volume on a

dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each ~~rolling~~ ~~continuous~~ 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through an initial source test and annual source testing thereafter. This limit shall not apply to the first fifteen 1-hour average NO<sub>x</sub> emissions measurements above 2.0 ppmvd corrected to 15% oxygen in any rolling 12-month period for each gas turbine provided the following requirements are met:

- a. This equipment operates under any one of the following:
  - i) Rapid combustion turbine load changes due to the following conditions:
    - A) Load changes initiated by the California Independent Systems Operator (ISO) or a successor entity when the plant is operating under Automatic Generation Control; or
    - B) Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
  - ii) The first two 1-hour reporting periods following the initiation or shutdown of a system injection pump
  - iii) The first two 1-hour reporting periods following the initiation of HRSG duct burners
  - iv) Events as the result of technological limitation identified by the operator and approved in writing by the District.
- b. The 1-hour average NO<sub>x</sub> emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, or qualified breakdown under District Rule 98.
- c. The qualified operating conditions described in (a) above are recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5:00 pm the next business day following the qualified operating condition. The notations in the log and CEMS shall describe the data and time of entry into the log/CEMS and the plant operating conditions responsible for NO<sub>x</sub> emissions exceeding the 2.0 ppmvd 1-hour average limit.

- d. The 1-hour average NO<sub>x</sub> concentration for periods that result from a qualified operating condition does not exceed 25 ppmvd corrected to 15% oxygen.

All NO<sub>x</sub> emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by this FDOC.

- (32)/ 37. The emissions of carbon monoxide (CO) from each turbine shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with these limits shall be based on CEMS data for each unit and averaged over each rolling ~~continuous~~ 3-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through an initial emissions source test and at least annual source testing thereafter.

- (33)/ 38. The emissions of volatile organic compounds (VOC) from each turbine, calculated as methane, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CO CEMS data for each unit, averaged over each ~~rolling-continuous~~ 1-hour period ~~or portion thereof~~, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation, and the District approved CO/ VOC surrogate relationship. The CO/ VOC surrogate relationship shall be verified and/ or modified, if necessary, based on an initial emissions source test and at least annual source testing thereafter.

- (34)/ 39. When operated without duct firing, the emissions from each turbine shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS) and continuous monitors and/ or District approved emission source testing. Compliance with the NO<sub>x</sub> and CO limits shall be based on a ~~rolling~~

~~continuous~~ 3-hour averaging period and compliance with the VOC limit shall be based on a ~~rolling continuous~~ 1-hour ~~averaging~~ period.

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO2)	13.14 <del>(3-hr)</del>
Carbon Monoxide, CO	24.0 <del>(3-hr)</del>
Volatile Organic Compounds, VOC	4.58 <del>(1-hr)</del>

- (35) / 40. When operated with duct firing, the emissions from this equipment shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a rolling ~~continuous~~ 3-hour averaging period and compliance with the VOC limit shall be based on a ~~rolling continuous~~ 1-hour ~~averaging~~ period.:

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO2)	15.95 <del>(3-hr)</del>
Carbon Monoxide, CO	29.13 <del>(3-hr)</del>
Volatile Organic Compounds, VOC	5.56 <del>(1-hr)</del>

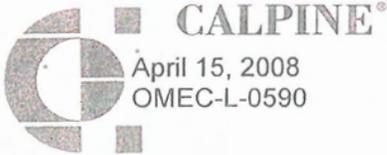
- (37) / 42. When operated under startup conditions, the emissions from each turbine shall not exceed the following emission limits, ~~averaged~~ over each ~~rolling continuous~~ 1-hour period, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO2)	240.0
Carbon Monoxide, CO	2706
Volatile Organic Compounds, VOC	48.0

- (59) / 59. ~~Twenty (20) years after the initial firing of the equipment, Upon expiration of the MERCs, unless additional NOx emission credits~~

are submitted to offset project emissions, the emissions of oxides of nitrogen (NOx) shall not exceed 1.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 3-hour period, excluding hours when the equipment is operated under any startup condition. Additionally, the total annual emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide, shall not exceed 50 tons per rolling 12-month period. Compliance with this limit shall be verified using the CEMS system on each gas turbine (Application Nos 973880 and 973881).

- (60) / 60. For each emission limit expressed as pounds per hour or parts per million based on a 1-hour averaging period, compliance shall be based on each ~~clock rolling continuous 1-hour period~~ using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data-; where clock hour is defined as any continuous 60 minute period beginning on the hour.
- (61) / 61. For each emission limit expressed as pounds per hour or parts per million based on a ~~rolling~~ 3-hour averaging period, compliance shall be based on each ~~rolling~~ continuous 3-hour period that begins on the hour and does not include startup or shutdown periods using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data.



April 15, 2008  
OMEC-L-0590

OTAY MESA ENERGY CENTER, LLC  
647 ALTA ROAD  
SAN DIEGO, CALIFORNIA 92154  
619.661.3400 (PHONE)  
619.661.7497 (FAX)

Mr. Arthur Carbonell  
Air Pollution Control Engineer  
San Diego Air Pollution Control District  
10124 Old Grove DR.  
San Diego, CA. 92131

Reference: Otay Mesa Energy Center LLC  
Project # 600042

Subject: Application to amend the Final DOC

Dear Mr. Carbonell:

Otay Mesa Energy Center-LLC (OMEC) is proposing several minor revisions to the Otay Mesa Generating Project-Final Determination of Compliance; Amendment 1B revised September 23, 2004.

Attached please find the SDAPCD General Permit Application and permit fee in the amount of \$5,108.

In order to track the requested changes to both the SDAPCD permit conditions and the CEC Conditions of Certification. The corresponding CEC Conditions are *italicized* in parenthesis (AQ\_) following the **SDAPCD** permit numbers in **BOLD** print.

The purpose of the modifications is to clarify the ambiguous language in the current SDAPCD FDOC (revised September 23, 2004) of those AQ Conditions which reference averaging periods.

As we discussed earlier this last month based on current language, the averages can be calculated differently. In general, OMEC is requesting the permit conditions to specify that hourly averages will be calculated on a clock hour basis. Specifically, all 1-Hr. calculations should be based on a clock hour and a rolling continuous 3-Hr periods should be based on 3 consecutive clock hours.

This modification is consistent with how averaging periods are defined in federal regulations 40 CFR Parts 60 and 75 and are also found in more current SDAPCD issued "air permits".

The proposed modifications would affect the following San Diego Air Pollution Control District (SDAPCD) –Authority to Construct permit conditions and the corresponding CEC AQ-Conditions of Certification:

1. SDAPCD permit conditions: **22**(AQ-21),**23**(AQ-22),**24**(AQ-23), **30** (AQ-83), **31** (AQ-36), **32**(AQ-37),**33** (AQ-38),**34** (AQ-39),**35** (AQ-40),**37** (AQ-42), **59**( AQ-59), **60** (AQ-60), and **61** (AQ-61).

Please refer to **Attachment A** which describes the proposed modification to each permit condition in strikeout/underline mode.

2. SDAPCD permit condition **33** (AQ-38) states: "The emissions of volatile organic compounds (VOC) from each turbine calculated as methane shall not exceed 2.0 ppm by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CO CEMS data for each unit, averaged over each 1-hour period ~~excluding time when the equipment is operated under start up or shut down conditions and time that the equipment is not in operation, and District approved CO/VOC surrogate relationship.~~ The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on an initial emissions source test and at least annual source test thereafter."

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OMEC requests the deletion of *... "or portion thereof" ...* from the permit condition. This is inconsistent with the language and intent of the balance of the permit.

3. At the District's request, OMEC is requesting an additional modification to SDAPCD and CEC Condition 59. Because the Mobile Emission Reduction Credits (MERCs) have an expiration date, project emissions are only offset only as long as the MERCs are valid. OMEC requests that the condition be amended to allow the provision to relinquish offsets to replace MERCs at the end of their term, instead of a 20 year time table, before reducing the NOx limit to 1 ppm.

Your consideration of these requested changes is appreciated and we look forward to hearing from you.

If you have any additional questions please call me at 619-661-3411.

Sincerely,



Ed Merrihew  
Compliance Manager

cc

Donna Stone-CEC  
David Williams-WRO  
Hans Kosten-CBO  
Mitch Weinberg-WRO  
Anita Tang-OMEC  
File 5.11.1

PERMIT / REGISTRATION APPLICATION

SUBMITTAL OF THIS APPLICATION DOES NOT GRANT PERMISSION TO CONSTRUCT OR TO OPERATE EQUIPMENT EXCEPT AS SPECIFIED IN RULE 24(d)

**IMPORTANT REMINDERS:** Read instructions on the reverse side of this form prior to completing this application. Please ensure that all of the following are included before you submit the application:  
 Appropriate Permit Fee       Completed Supplemental Form(s)       Signature on Application

REASON FOR SUBMITTAL OF APPLICATION: (check the appropriate item and enter Application (AP) or Permit to Operate (PO) number if required)

- 1.  New Installation      2.  Existing Unpermitted Equipment or Rule 11 Change      3.  Modification of Existing Permitted Equipment
- 4.  Amendment to Existing Authority to Construct or AP      5.  Change of Equipment Location      6.  Change of Equipment Ownership
- 7.  Change of Permit Conditions      8.  Change Permit to Operate Status to Inactive      9.  Banking Emissions
- 10.  Registration of Portable Equipment      11.  Other (Specify) \_\_\_\_\_
- 12. List affected AP/PO#(s): 978379      978380

APPLICANT INFORMATION

- 13. Name of Business (DBA) Otay Mesa Energy Center LLC (OMEC-LLC) [site ID No. 99091A]
- 14. Nature of Business Power generation-600MW Gas fired power plant-under construction
- 15. Does this organization own or operate any other APCD permitted equipment at this or any other adjacent locations in San Diego County?  Yes  No  
If yes, list assigned location ID's listed on your PO's \_\_\_\_\_
- 16. Type of Ownership  Corporation  Partnership  Individual Owner  Government Agency  Other \_\_\_\_\_
- 17. Name of Legal Owner (if different from DBA) \_\_\_\_\_

	<b>A. Equipment Owner</b>	<b>B. Authority to Construct (if different from A)</b>
18. Name	<u>OMEC-LLC</u>	<u>same as A.</u>
19. Mailing Address	<u>647 Alta Road</u>	_____
20. City	<u>San Diego</u>	_____
21. State	<u>CA</u> Zip <u>92154</u>	_____ Zip _____
22. Phone	<u>(619-) 661-3400</u> FAX <u>(619) 661-7497</u>	( )      FAX ( )

	<b>C. Permit to Operate (if different from A)</b>	<b>D. Billing Information (if different from A)</b>
23. Name	_____	_____
24. Mailing Address	_____	_____
25. City	_____	_____
26. State	_____ Zip _____	_____ Zip _____
27. Phone	( )      FAX ( )	( )      FAX ( )

EQUIPMENT/PROCESS INFORMATION: Type of Equipment:  Stationary  Portable.  
If portable, will operation exceed 12 consecutive months at the same location  Yes  No

- 28. Equipment Location Address 647 Alta Rd.      City San Diego      Parcel No. 648-04-22
- 29. State CA      Zip 92154      Phone (619) 661-3400      FAX (619) 661-7497
- 30. Site Contact Ed Merrihew      Title Compliance Manager      Phone (619) 661-3411
- 31. General Description of Equipment/Process 2 gas fired CT's w/ HRSG's and 1 steam turbine for the generation of electrical power

32. Application Submitted by  Owner  Operator  Contractor  Consultant      Affiliation \_\_\_\_\_

EXPEDITED APPLICATION PROCESSING:  I hereby request Expedited Application Processing and understand that:

- 33. a) Expedited processing will incur additional fees and permits will not be issued until the additional fees are paid in full (see Rule 40(d)(8)(iv) for details).
- b) Expedited processing is contingent on the availability of qualified staff.      c) Once engineering review has begun this request cannot be cancelled.
- d) Expedited processing does not guarantee action by any specific date nor does it guarantee permit approval.

I hereby certify that all information provided on this application is true and correct.

- 34. SIGNATURE Ed Merrihew      Date 4-15-2008
- 35. Print Name Ed Merrihew      Title Compliance Manager
- 36. Company OMEC-LLC      Phone (619) 661-3411      E-mail Address ed@Calpine.com

APCD USE ONLY

AP # _____	ID # _____	Cust. No. _____	Sector: _____	UTM's X _____	Y _____	SIC _____
Receipt # _____	Date _____	Amt Rec'd \$ _____	Fee Code _____			
Engineering Contact _____	Fee Code _____	AP Fee \$ _____	T&M Renewal Fee \$ _____			
Refund Claim # _____	Date _____	Amt \$ _____				
Application Generated By _____	NV# _____	NC # _____	Other _____	Date _____	Inspector _____	

## ATTACHMENT A

### Otay Mesa Energy Center LLC, AQ-Permit Conditions Proposed Modifications

#### List of Proposed Air Quality Permit Condition Modifications

[SDAPCD AQ-Permit number is listed first and in parenthesis (#); CEC AQ-Condition followed in **BOLD** print]

Proposed changes are presented in ~~strikeout~~ (to be deleted) and underline, to be added.

Permit conditions  
(APCD)/CEC

- (22) / 21. The total emissions from both turbines combined shall not exceed 1133 pounds per hour of oxides of nitrogen (NO<sub>x</sub>), calculated as nitrogen dioxide. ~~These emissions limits shall apply during startups and shutdowns.~~ Deleted: and averaged over a rolling continuous 1-hour period
- (23) / 22. When operating with post-combustion air pollution control equipment, the total emissions from both turbines combined shall not exceed 412 pounds per hour of oxides of nitrogen (NO<sub>x</sub>), calculated as nitrogen dioxide. ~~Additionally, when operating with post-combustion air pollution control equipment, the total emissions when only one turbine is in operation shall not exceed 283 pounds per hour of NO<sub>x</sub>, calculated as nitrogen dioxide. These emissions limits shall apply during startups and shutdowns~~ Deleted: and averaged over a rolling continuous 1-hour period
- (24) / 23. The total emissions from both turbines combined shall not exceed 2738 pounds per hour of carbon monoxide (CO). ~~These limits shall apply during startups and shutdowns.~~ Deleted: averaged over a rolling continuous 1-hour period.
- 
- (30) / 83. The emissions of ammonia (slippage) from each gas turbine exhaust stack shall not exceed 10.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a 1-hour period. Deleted: rolling continuous
- (31) / 36. The emissions of oxides of nitrogen (NO<sub>x</sub>) from each turbine, calculated as nitrogen dioxide, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 1-hour period, excluding time when the equipment is operated under startup or Deleted: rolling continuous

shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through an initial source test and annual source testing thereafter. This limit shall not apply to the first fifteen 1-hour average NO<sub>x</sub> emissions measurements above 2.0 ppmvd corrected to 15% oxygen in any rolling 12-month period for each gas turbine provided the following requirements are met:

- a. This equipment operates under any one of the following:
    - i) Rapid combustion turbine load changes due to the following conditions:
      - A) Load changes initiated by the California Independent Systems Operator (ISO) or a successor entity when the plant is operating under Automatic Generation Control; or
      - B) Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
    - ii) The first two 1-hour reporting periods following the initiation or shutdown of a system injection pump
    - iii) The first two 1-hour reporting periods following the initiation of HRSG duct burners
    - iv) Events as the result of technological limitation identified by the operator and approved in writing by the District.
  - b. The 1-hour average NO<sub>x</sub> emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, or qualified breakdown under District Rule 98.
- 
- c. The qualified operating conditions described in (a) above are recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5:00 pm the next business day following the qualified operating condition. The notations in the log and CEMS shall describe the data and time of entry into the log/CEMS and the plant operating conditions responsible for NO<sub>x</sub> emissions exceeding the 2.0 ppmvd 1-hour average limit.
  - d. The 1-hour average NO<sub>x</sub> concentration for periods that result from a qualified operating condition does not exceed 25 ppmvd corrected to 15% oxygen.

All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by this FDOC.

(32)/ 37. The emissions of carbon monoxide (CO) from each turbine shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with these limits shall be based on CEMS data for each unit and averaged over each rolling 3-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through an initial emissions source test and at least annual source testing thereafter.

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(33) / 38. The emissions of volatile organic compounds (VOC) from each turbine, calculated as methane, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CO CEMS data for each unit, averaged over each 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation, and the District approved CO/VOC surrogate relationship. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on an initial emissions source test and at least annual source testing thereafter.

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(34) / 39. When operated without duct firing, the emissions from each turbine shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS) and continuous monitors and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

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Pollutant

Emission Limit, lbs/hr

Oxides of Nitrogen, NOx (calculated as NO2)	13.14 (3-hr)
Carbon Monoxide, CO	24.0 (3-hr)
Volatile Organic Compounds, VOC	4.58 (1-hr)

- (35) / 40. When operated with duct firing, the emissions from this equipment shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a rolling 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

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<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO2)	15.95 (3-hr)
Carbon Monoxide, CO	29.13 (3-hr)
Volatile Organic Compounds, VOC	5.56 (1-hr)

- (37) / 42. When operated under startup conditions, the emissions from each turbine shall not exceed the following emission limits, averaged over each 1-hour period, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:

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<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO2)	240.0
Carbon Monoxide, CO	2706
Volatile Organic Compounds, VOC	48.0

- (59) / 59. ~~Twenty (20) years after the initial firing of the equipment, Upon expiration of the MERCs, unless additional NOx emission credits are submitted to offset project emissions,~~ the emissions of oxides of nitrogen (NOx) shall not exceed 1.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 3-hour period, excluding hours when the equipment is operated under any startup condition. Additionally, the total

annual emissions of oxides of nitrogen (NO<sub>x</sub>), calculated as nitrogen dioxide, shall not exceed 50 tons per rolling 12-month period. Compliance with this limit shall be verified using the CEMS system on each gas turbine (Application Nos 973880 and 973881).

(60) / 60.

For each emission limit expressed as pounds per hour or parts per million based on a 1-hour averaging period, compliance shall be based on each clock hour using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data; where clock hour is defined as any continuous 60 minute period beginning on the hour.

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(61) / 61.

For each emission limit expressed as pounds per hour or parts per million based on a rolling 3-hour averaging period, compliance shall be based on each continuous 3-hour period that begins on the hour and does not include startup or shutdown periods using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data.

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